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9 Contact:

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Fr m: Sent:

Jiang, Dong Friday, January 10, 2003 6:05 PM STIC-Biotech/ChemLib

Subject:

09/931,836

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- -issued
- -commercial

Thank you very much.

Please send results on paper to Dong Jiang in 10D-08 (mail stop CM1-10D19).

Dong Jiang (78243) 703-305-1345 U.S. Patent and Trademark Office Art Unit 1646 dong.jiang@uspto.gov CM1-10D08 Mail stop: CM1-10D19

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## ALIGNMENTS

Anti-inflammatory; keratolytic; anti-HIV; anti-allergic; antianaemic; antiarteriosclerotic; antiasthmatic; antidiabetic; nephrotropic; cancer; antigout; dermatological; antithyroid; virucide; hepatotropic; antibody; immunosuppressive; cytostatic; fungicide; protozoacide; antibacterial; gene therapy; diagnostic; immunological disorder; viral infection; bacterial infection; fungal infection; parasitic infection; immunogen. Lu DAM; Human immune system molecule from Incyte clone 1890540. Yue H, Lal P, Tang YT, Baughn MR, Azimzai Y, AAB15548 standard; Protein; 246 AA 99US-0127852. 99US-0132647. 04-APR-2000; 2000WO-US09072. (first entry) (INCY-) INCYTE PHARM INC. WO200060080-A2. Homo sapiens. 05-APR-1999; 05-MAY-1999; 28-FEB-2001 12-OCT-2000 AAB15548; RESULT 1 AAB15548 

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(AAA99775-A95789), and compositions comprising them are useful for the diagnosis, treatment or prevention of immunological disorders, infections and cell proliferative disorders associated with decreased expression or activity of IMOL, such as immunological disorders (e.g. inflammathon, actimic keratosis, AIDS, Addison's disease), hematopoietic cancer, infections caused by virus (e.g. adenovirus, parvovirus, coronavirus), bacteria (e.g. Staphylococcus, Streptococcus, Shigella), fungl (e.g. Aspergillus, Blastomyces), parasites (e.g. Plasmodlum, Trypanosoma, intestinal protozoa), cell proliferative disorders (e.g. actimic keratosis, arteriosclerosis, bursitis), and cancers (e.g. leukemia, melanoma, sarcoma). The peptides are also cancers (e.g. leukemia, melanoma, sarcoma). The peptides are also specifically recognizes these peptides. The polynucleotides may be used to detect and quantify gene expression in biopsied tissues in which expression of IMOL may be correlated with the disease, as targets in a carrier and affected individuals, and for screening libraries of carrier and affected individuals, and for screening libraries of carrier and affected individuals, and correcteding the carriers and affected individuals, and corrected in the disease.
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                                                                                                                                                                                                                  This sequence represents a human immune system molecule (IMOL) encoded by the cDNA isolated as clone 1890540 from the Incyte BLADTUT07 library. The human IMOLS (AAB15536-B15550) and their encoding polynucleotides
                                           New human immune system molecules 1-15 and polynucleotides encoding them useful for diagnosing, treating or preventing e.g. immunological disorders, infections, cell proliferative disorders, microbial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 compounds in drug screening techniques. Antibodies which specifically bind to IMOL may be used for the diagnosis of disorders characterized by expression of IMOL, or in assays to monitor patients being treated with IMOL or agonists, art agonists, or inhibitors of IMOL.
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The invention relates to the industrial protein (ARCHOGS), Zacrp3 is a noncleic acids which encode it (ARCHOGS), Zacrp3 is a homogue collagen-like domain comprising Gly-Maa-Yaa or Gly-Maa-Pro repeats, and a collagen-like domain comprising Gly-Maa-Sac or Gly-Maa-Pro repeats, and a collagen-like domain comprising Gly-Maa-Strands. The zacrp3 gene is located on chromosome 5pl2. The invention also relates to zacrp3 confidence for containing zacrp3 bolypeptides, carp3-specific antibodies, expression constructs and host cells comprising zacrp3 nucleic acids, and methods of recombinant production of comprising zacrp3, Human zacrp3, and its agonists and antagonists may be used in the study and modulation of cellular metabolism and energy balance in mammals, and may therefore be used to treat disorders such as obesity and carpay and conditions associated with these disorders. Due to its Clq like domain, zacrp3 and zacrp3-containing fusion proteins may be useful cas antimicrobial agents, promoting lysis or phagocytosis of infectious organisms such as bacteria or viruses. Zacrp3, its fragments, fusion proteins, antibodies and activity modulators may also be used to inhibit collagen-induced platelet aggregation, adhesion, or activation, and may therefore have potential for promoting blood flow within the vasculature of a mammal eq., to treat injury to the vasculature or other collagence thuman zacrp3 and its antibodies may additionally be used to study classes. Human zacrp3 and its antibodies may additionally be used to study dimerisation and oligomerisation. The present sequence represents human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel zacrp3 polypeptides used to treat or prevent bacterial or viral infections, for wound healing, improving blood flow, and to analyze
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ACRP30; Clq domain; collagen-like domain; energy balance modulation; cellular metabolism; metabolic disorder; obesity; anorexia; antimicrobial agent; infection; platelet aggregation inhibition; adhesion; activation; vascular injury; antibacterial; antiviral.
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                                                                                             Secreted protein; transmembrane protein; PR01484; PR04334; PR01122; PR04899; PR01890; PR01887; PR04785; PR04355; PR04352; PR04352; PR04354; PR04408; PR04537; PR04405; PR04409; PR04424; PR04422; PR04430; PR04409; tumour; obesity; diabetes; Insultinenta; kidney disorder; Bergers disease; nephropathy; Schonlein-Henoch purpura; cellac disease; dermatitis herpetiformis; Crohns disease.
                                                                                                                                                                                   "Clq domain protein"
                                                                                                                                                                                                                       "Clg domain protein"
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                                                                                                                                                                                                protein"
                                                                                                                                                                       "signal peptide"
                                                                                  polypeptide designated PRO1484
                                                                                                                                                                                                                                                                                                                                        ...221
                                                                                                                                                           Location/Qualifiers
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                                                                                                                                                                                               "Clq domain
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                                              AAB18909 standard; Protein; 246 AA
                                                                                                                                                                                                                                                                                                                                                                                                           99US-0125774.
99US-0125778.
99US-0125826.
99US-0127035.
99US-0130359.
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                                                                      (first entry)
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235..24
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/note-
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42..75
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51..84
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241 LLFETK 246
     241 LLFETK 246
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                                                                                                                                               Homo sapiens
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05-APR-1999;
21-APR-1999;
                                                                      08-FEB-2001
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24-MAR-1999;
                                                          AAB18909;
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                                  RESULT 3
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The present sequence represents a secreted or transmembrane polypeptide.
The specification describes polypeptides designated PR0184, PR04334,
PR01252, PR01899, PR01897, PR04186, PR04355, PR04457, PR04405,
PR01352, PR044380, PR04480, PR04489, PR04537, PR04425, PR05990,
PR04356, PR04424, PR04422, PR04430 and PR04499. PR01889 polypeptide is
useful for diagnosing tumour in a mammal. The polypeptides, their
agonists and antagonists are useful treating a condition associated with
expression or activity of the polypeptide. Conditions treated include
obesity, diabetes or hyper-or hypo-insulinemia. The polypeptides are
obesity, diabetes or hyper-or hypo-insulinemia. The polypeptides are
capable of inducing proliferation of mammalian kidney mesangial cells
and are therefore useful for treating kidney disorders associated with
decreased mesangial cell function such as Bergers disease or other
comphropathies associated with Schonlein-Henoch purpura, cellac disease,
dermatitis herpetiformis or Crohns disease. The nucleic acids may be used
to generate transgenic animals for use in development and screening of
therapeutically useful reagents and also for chromosome identification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 PPGIPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGERGQHGPKGEKGYPGIPPELQIAF 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12. MASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYV 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel secreted and transmembrane polypeptides useful for diagnosing tumour in a mammal, for identifying agonists and antagonists of the polypeptide and for therapeutic use
                                                                                                                                                                                                                                                                                                                                                                                  Pan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 PPGIPGNHGNNGANGATGHEGAKGEKGDKGDKGPRGERGQHGPKGEKGYPGIPPELQIAF
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Zhang Z;
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100.0%; Pred. No. 2e-124;
1ve 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                               Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                          Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 12; Fig 2; 222pp; English.
                                                         99US-0132371.
99US-0132379.
99US-0132383.
                                                                                                                                       990S-0135750
990S-0138166.
990S-0144791.
990S-0146970.
99US-0131272
99US-0131291
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                                                                                                                                                                                                                                                                                                                      (GETH ) GENENTECH INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   246 AA;
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|LEETK 246
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                                                                                                                                                                                                                                                                                                                                                                                  Desnoyers L,
                                                                                                                                          25-MAY-1999;
08-JUN-1999;
20-JUL-1999;
                                                         04-MAY-1999;
04-MAY-1999;
04-MAY-1999;
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09-DEC-1999;
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246

LLFETK

241

241 LLFETK 246

YLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGALHGDHQRFSTFAGF

MASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYV 180 

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RESULT 5
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which encode human secretory or membrane proteins represented by
AAB88131. - AAB8819. Included in the invention are primers
AAF93917 - AAF94295 and AAF62232 - AAF62235 which are used to isolate the
CDNA sequences of the invention. The invention also includes methods for
the production of antibodies directed against the proteins, and cDNA
sequences, which can be used in vaccines. The polynucleotide sequences
can be used in gene therapy. The polynucleotide sequences
can be used in gene therapy. The polynucleotide sequences
can be used in gene therapy. The polynucleotide sequences
can be used as sociated with inappropriate secretory
proteins they encode may be used in the prevention, treatment and
diagnosis of diseases associated with inappropriate secretory
protein/membrane protein expression. The nucleic acids and complementary
sequences may also be used as DNA probes in diagnostic assays
(e.g. polymerase chain reactions (PCR)) to detect and quantitate the
presence of similar nucleic acid sequences in samples. They may also be
used to study the expression and function of secretory proteins/membrane
cused to study the expression and function of secretory proteins/membrane
cused to study the expression and function of secretory proteins/membrane
cused to study the production of antagonists them and in assays to
dentify medulators (agonists and antagonists) of expression and
activity. The antibodies and antagonists may also be used as therapean.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           agents to down regulate expression and activity. The antibodies may also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       useful in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           be used as diagnostic agents for detecting the presence of the polypeptides in samples (e.g. by enzyme linked immunosorbant assay (ELISA). Examples of diseases which may be treated include rheumatoid arthritis and diabetes.
                                                                                                     Human; secretory protein; membrane protein; vaccine; gene therapy; rheumatoid arthritis; diabetes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hayashi K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nucleic acids encoding secretory proteins/membrane proteins, usefu
gene therapy or as candidate target molecules in drug development
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 22; Length 246;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kawai Y, Sugiyama T,
                                                                Human membrane or secretory protein clone PSEC0232.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; SEQ ID 262; 609pp + CD ROM; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ota T, Isogai T, Nishikawa T,
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Local Similarity 100.0%;
hes 246; Conservative 0;
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11-JAN-2000; 2000JP-0118775.
02-MAY-2000; 2000JP-0183766.
                                                                                                                                                                                                                                                                                                           07-JUL-2000; 2000EP-0114090.
                  23-MAY-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                            (HELI-) HELIX RES INST.
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                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                      EP1067182-A2.
                                                                                                                                                                                                                                                                                                                                                08-JUL-1999;
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Human; secreted protein; membrane-associated protein; hypertension; inflammatory disorder; neurological disorder; haematopoietic disorder; skeletal developmental disorder; growth abnormality; autoimmune disorder; neurodegenerative disorder; nervous system disorder; bacterial infection; peripheral myelinopathy; viral infection; cancer; obesity; diabetes; hypotension; sexual development disorder; blood disorder.

Novel human secreted or membrane-associated protein #10.

(first entry)

08-MAY-2002

AAU84371;

AAU84371 standard; Protein; 246 AA.

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The present invention relates to the isolation of novel human secreted or membrane-associated proteins and the genes encoding them. The sequences of the invention are useful for treating, preventing and cancers of the invention are useful for treating, preventing and membranes of the invention are useful for treating, preventing and ameliorating various diseases such as inflammatory disorders (e.g. asthma), neurological disorders (e.g. dementia), haematopoietic disorders, autoimmune disorders (e.g. Huntington's disease), nervous system disorders, autoimmune disorders (e.g. theumatoid arthritis), pripheral myelinopathies, viral and bacterial infections, and propotension, obesity, bulimia, anorexia, manic depression, delirium, mental retardation, Tourette's syndrome, schizophrenia, growth, mental or sexual development disorders, and dysfunctions of the blood cascade system including those leading to stroke. AAU84362-AAU84389 represent the novel human secreted or membrane-associated proteins of the
                                                                                                                                                                             Novel secreted and membrane-associated polypeptides and polynucleotides encoding the polypeptides, for preventing, treating and ameliorating cancers, mental or sexual developmental disorders, and malignant tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 131-132; 151pp; English.
WPI; 2002-188468/24.
                                                              N-PSDB; ABK35591
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Strum JC;

Rizvi SK,

Lai Y, Martensen SA,

Cogswell JP, L

Smith RF, Xiang Z,

Agarwal P,

(SMIK ) SMITHKLINE BEECHAM CORP. (SMIK ) SMITHKLINE BEECHAM PLC. (GLAX ) GLAXO GROUP LTD.

12-JUL-2000; 2000US-218033P. 21-AUG-2000; 2000US-226517P. 12-JUL-2001; 2001WO-US21985.

WO200204600-A2.

17-JAN-2002

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19-APR-2000; 2000WO-US10454
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                                                                                                                                                                                                                                                                                                                                                                    Human; secreted protein; membrane-associated protein; hypertension; inflammatory disorder; neurological disorder; haematopoietic disorder; skeletal developmental disorder; growth abnormality; autoimmune disorder; neurodegenerative disorder; nervous system disorder; betterial infection; peripheral myelinopathy; viral infection; cancer; obesity; diabetes; hypotension; sexual development disorder; blood disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    secreted and membrane-associated polypeptides and polynucleotides ing the polypeptides, for preventing, treating and ameliorating rs, mental or sexual developmental disorders, and malignant tumours
                                                                                                             61 PPGIPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGERGQHGPKGEKGYPGIPPELQIAF 120
                                                                                                                       61 PPGIPGNHGNNGNNGATGHEGAKGEKGDKGDKGDKGERGQHGPKGEKGYPGIPPELQIAF 120
                                                                                                                                                 121 MASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYV 180
                                                                                                                                                            181 YLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGALHGDHQRFSTFAGF 240
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                                                                                 1 MLWRQLIYWQLLALFFLPFCLCQDEYMESPQTGGLPPDCSKCCHGDYSFRGYQGPPGPPG
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                                    23;
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                                  Score 1367; DB 2
Pred. No. 2e-124;
                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 130-131; 151pp; English
                                                                                                                                                                                                                                                                                           AAU84370 standard; Protein; 319 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (SMIK ) SMITHKLINE BEECHAM CORP. (SMIK ) SMITHKLINE BEECHAM PLC. (GLAX ) GLAXO GROUP LTD.
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                                  100.08;
                                            100.08;
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21-AUG-2000; 2000US-226517P.
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                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xiang 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-188468/24.
N-PSDB; ABK35590.
                                             Similarity
                246 AA;
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|LLFETK 246
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Smith RF,
                                                                                                                                                                                                                                                                                                              AAU84370;
                Sequence
                                  Query Match
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                                              Local
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                                                      Matches
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in present inventable seates to the isolation of novel human secreted or membrane-associated proteins and the genes encoding them. The sequences of the invention are useful for treating, preventing and ameliorating various diseases such as inflammatory disorders (e.g. asthma), neurological disorders (e.g. dementia), haematopoietic disorders, skeletal developmental disorders, growth abnormalities, neurologenerative disorders (e.g. Huntington's disease), nervous system disorders, autoimmune disorders (e.g. Huntington's disease), nervous system clisorders, autoimmune disorders (e.g. Huntington's disease), nervous system disorders, viral and bacterial infections, alpha-mannosidosis, diabetes, cancers, malignant timmours, hyper- and hypha-mannosidosis, diabetes, cancers, malignant timmours, delirium, mental retardation, Tourette's syndrome, schizophrenia, growth, mental or sexual development disorders, and dysfunctions of the blood cascade system including those leading to stroke. Anu84362-AAN84389 represent the novel human secreted or membrane-associated proteins of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;;
present invention relates to the isolation of novel human secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SMMKHEDVEEVVVYLMHNGNTVFSMXSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGAL 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SHPKTGTVDNNTSTDLKSLRPDELPHPEVDDLAQITTFWGGSPQTGGLPPDCSKCCHGDY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29 -----SPQTGGLPPDCSKCHGDY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 23; Length 319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
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Pred. No. 9.3e-120;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MLWRQLIYWQLLALFFLPFCLCQDEYME---
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse zacrp2 protein, SEQ ID NO:12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96.68;
77.18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     319 AA;
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07-JAN-2002 (first entry)
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The intention features to the intention settle protein (ACRP30) and contains a homogue of adipocyte complement related protein (ACRP30) and contains a homogue of adipocyte complement related protein (ACRP30) and contains a homogue collapse of the domain comprising Gly Yaa-Yaa or Gly Yaa-Pro repeats, and a c-terminal clq domain comprising Gly Yaa-Stands. The zacrp3 gene is certained to the compression containing zacrp3 polypeptides. Fragments, fusion proteins containing zacrp3 polypeptides.

I fragments, fusion proteins containing zacrp3 polypeptides.

I comprising zacrp3 nucleic acids, and methods of recombinant production of zacrp3. Human zacrp3, and its agonists and antagonists may be used in the study and modulation of cellular metabolism and energy balance in mammals, and may therefore be used to treat disorders such as obesity and anorexia, and conditions associated with these disorders. Due to its Clq is an antimicrobial agents, promoting lysis or phagocytosis of infectious corganisms such as bacteria or viruses. Zacrp3, its fragments, fusion continued to intraction and may includiators may abe used to inhibit contains, antibodies and activity modulators may abe used to inhibit contains, antibodies and activity modulators may abe used to inhibit contains, antibodies and activity modulators may abe used to inhibit contains.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of a mammal e.g., to treat injury to the vasculature or other collagenous tissue. Human zacrp3 and its antibodies may additionally be used to study dimerisation and oligomerisation. The present sequence represents mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                collagen-induced platelet aggregation, adhesion, or activation, and may therefore have potential for promoting blood flow within the vasculature
                                                                                                                                               Novel zacrp3 polypeptides used to treat or prevent bacterial or viral infections, for wound healing, improving blood flow, and to analyze energy efficiency in mammals -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 PPGIPGNHGNNGANGATGHEGAKGEKGDKGDLGPRGERGQHGPKGEKGYBGVPPELQIAF 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 PPGIPGNHGNNGANGATGHEGAKGEKGDKGDLGPRGERGOHGPKGEKGYPGIPPELQIAF 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 YLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGALHGDHQRFSTFAGF 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                                                                                                                      The invention relates to the human zacrp3 protein (AAB29580) and to
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                                                                                                                                                                                                          Oisclosure; Page 117-118; 123pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         zacrp2, a homologue of human zacrp3
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                                                                       Bishop PD
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                                           (ZYMO ) ZYMOGENETICS INC
                                                                                                   WPI; 2000-665243/64.
N-PSDB; AAC64064.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       246 AA;
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| 241 LLFETK 246
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                                                                       Piddington CS,
            20-APR-1999;
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Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidabetic; antifulfammatory; antiulcer; vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic; cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder;
                                                                                                                                neurological disease; infection; human; secreted protein
Human polypeptide SEQ ID NO 41.
                                                                                                                                                                                                                                                                                                          17-JAN-2001; 2001WO-US01356
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22-AUG-2000;
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2000US-0234997.
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The invention relates to novel human polynucleotides (AAI99513-AAI99538)
and the encoded proteins (AAM99915-AAM99934) which are useful for
preventing, treating or ameliorating medical conditions e.g. by protein
or preventing, treating or ameliorating medical conditions e.g. by protein
or gene therapy. The genes are isolated from a range of human tissues
disclosed in the specification. The nucleic acids, proteins, antibodies
and (ant)agonists are useful in the diagnosis, treatment and prevention
of e. (a) cancer, e.g. breast and ovarian cancer and other cancers of the
adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver,
lung, or urogenital; (b) immune disorders e.g. Addison's disease,
allergies, autoimmune heemolytic anaemia, autoimmune thyroiditis,
diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid
architetis and ulcerative collitis; (c) cardiovascular disorders such as
mycardial ischaemias; (d) wound healing; (e) neurological diseases
c.g. cerebral anoxia and epilepsy; and (f) infectious diseases
c.g. cerebral anoxia and aparasitic infections
of the sequence data for this patent did not form part of the
printed specification, but was obtained in electronic format directly
from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                       New nucleic acids and polypeptides, useful for treating, preventing or ameliorating human disorders and diseases \cdot
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                                                                                                                                                                                                                                                                                                                          claim 11; SEQ ID NO 41; 465pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AVLKLAKGDEVWLRMGNGALHGDHQRFSTFAGFLLFETK 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAM41860 standard; Protein; 202
                                                                                                                                                                                          Ruben SM
              2000US-0251856
2000US-0251868
2000US-0251869
2000US-0251989
2000US-0251990
2000US-0259678
                                                                                                                                                      (HUMA-) HUMAN GENOME SCI INC
   2000US-0251479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-OCT-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 99.5<sup>1</sup>
Matches 218; Conservative
                                                                                                                                                                                        Rosen CA, Barash SC,
                                                                                                                                                                                                                      WPI; 2001-451924/48.
N-PSDB; AAI99523.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      225 AA;
06-DEC-2000; 2
08-DEC-2000; 2
08-DEC-2000; 2
08-DEC-2000; 2
08-DEC-2000; 2
11-DEC-2000; 2
05-JAN-2001; 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              148
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AAM41860
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Human polypeptide SEQ ID NO 6791.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Note: The sequence data for this patent did not form part of the printed specification.
 nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                          Wang D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -- 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 ILLPQPLEXLGLQIAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYF 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FIFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGN 224
                                                               chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel nucleic acids and polypeptides, useful for treating disorders such as central nervous system injuries -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32;
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                                                                                                                                                                                                                                                                                                                                                                                                                        Qian XB,
Yang Y,
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Pred. No. 1.2e-77;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77 TGHEGAKGEKGDKGDLGPRGERGQHGPKGEKGYPGIPPE---
                                                                                                                                                                                                                                                                                                                                                                                                                     tu C, Xue AJ,
Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 2; SEQ ID NO 6791; 10078pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                      Chen R,
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                                                                                                                                                                                                                                                                                                                                                                                                                   Liu C, Asundi V, Ch
Wang Z, Wehrman T, X
Zhou P, Goodrich R,
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84.28;
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2000US-0552317.
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Matches 170; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                        (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         202 AA;
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                                                                                                                                            WO200153312-A1.
                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                          09-JUL-2000;
19-JUL-2000;
03-AUG-2000;
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                                                                                                                                                                                                                                                                                                                                           -OCT-2000
                                                                                Leukaemia
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Zhao QA,
                                                                                                                                                                                                                                                                                                                                                                                                                     Tang YT,
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The present sequence is nominal process.

HP10781. The polynucleotide and process with invention can be used in the prevention, diagnosis and treatment of diseases associated with inappropriate polypeptide expression. The polynucleotides may be used to produce the polypeptide, by inserting the nucleic acids into a host cell and culturing the cell to express the protein. The polynucleotides and its complementary sequences may also be used as DNA probes in diagnostic assays and also used in gene therapy. The probes in diagnostic assays and also used in gene therapy. The probes in diagnostic assays and also used in gene therapy. The polypeptides may also be used as antigens in the production of antibodies and in assays to identify modulators of polypeptide expression and activity. The polypeptides and nucleic acids may be used as nutritional supplements, to modulate cytokine and cell proliferation activity, to modulate immune stimulation or suppression (e.g. for the treatment of microbial infections and autoimmune disorders such as multiple sclerosis, rheumatopolesis, to modulate tissue growth activity (e.g. for the treatment of Parkinson's disease, Huntington's disease and Alzheimer's disease, to modulate chemotactic and chemokinetic activity, to modulate receptor modulate thrombolytic activity, to modulate receptor ilgand activity, to modulate inflammation and to inhibit tumour growth.
                                                                                                                                                                                                                                                                                                                                        cell proliferation; immunomodulatory; autoimmune disorder; antimicrobial; multiple sclerosis; rheumatoid arthritis; insulin-dependent diabetes; haematopoiesis; tissue growth activity; Parkinson's disease; cytostatic; Huntington's disease; Alzheimer's disease; chemotactic; chemokinetic; haemostatic; thrombolytic; tumour growth inhibitor; anabolic; contraceptive; antiinfertility; antiinflammatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human proteins with hydrophobic domains and the nucleic acids encoding them, useful for preventing diagnosing and treating e.g. cancer, Alzheimer's and inflammation -
                                                                                                                                                                                                                                                                                                                        hydrophobic domain; gene therapy; nutritional supplement;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present sequence is human protein with hydrophobic domain, HP10781. The polynucleotide and non-real and protein with hydrophobic domain,
                                                                                                                                                                                                                                                                              Human protein having hydrophobic domain, HP10781.
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                                                                                                                                                  Ą.
                                                                                                                                                AAE06589 standard; Protein; 223
225 GALHGDHQRFSTFAGFLLFETK 246
                      181 GALHGDHQRFSTFAGFLLFETK 202
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2000JP-0002299.
2000JP-0026862.
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(SAGA ) SAGAMI CHEM RES CENT.
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                                                                                                                                                                                                                                      (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
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11-JAN-2000;
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                                                                                                                                                                                                                                    25-SEP-2001
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                                                                                                                                                                                                                                                                                                                        Human;
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2001-442253/47.
                                                                                                                  Similarity
                                                                                  128 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200153312-A1.
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14-SEP-2000;
19-OCT-2000;
29-NOV-2000;
                                                                                                                                                                                                                                    MASL 124
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JAN-2000;
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09-JUL-2000;
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                                                                                                                    Best Local Sim
Matches 124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      leukaemia.
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Wang J,
                                                                                                                                                                                                                                                                                                                                   AAM40074;
                                                                                     Sequence
                                                                                                        Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human secreted proteins, and encode the proteins given in AVII374 to AVII531, respectively. The proteins given represent the signal peptide and an N-terminal fragment of a secreted protein. The nucleic acid sequences can be used for producing secreted human gene products. They can also be used to develop producing for diagnosis and therapy. The proteins obtained may have cytokine activity, cell proliferation/differentiation activity, hammatopoiesis regulating activity, tassue growth regulating activity, reproductive hormone regulating activity, reproductive hormone
                                                                                                                                                                                                                                                                                                                                                     Human; secreted protein; EST; expressed sequence tag; diagnosis; forensic; gene therapy; chromosome mapping; signal peptide; upstream regulatory sequence; cytokine activity; cell proliferation; differentiation; haematopolesis regulation; tissue growth regulation; reproductive hormone regulation; chemotactic; chemokinetic; haemostatic; thrombolytic; anti-inflammatory; tumour inhibition.
                                                                                                                                                           AAX39440 to AAX39597 represent 5' expressed sequence tags (ESTs) for human secreted proteins, and encode the proteins given in AAY11374 to
                                                                                                                   61 SHPKTGTVDNNTSTDLKSLRPDELPHPEVDDLAQITTFWGQSPQTGGLPPDCSKCCHGDY 120
                                                                                                                                                SFRGYQGPPGPPGPPGIPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGERGQHGPKGEK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New nucleic acids encoding human secreted - proteins obtained from cDNA libraries prepared from substantia nigra, cerebellum, surrenals and fetal brain tissue
                                          Gaps
                                                                                                      47
                                                                                  9
                                                                         -SPQTGGLPPDCSKCCHGDY
                                          73;
                    Length 223;
                                          Indels
                     DB 22;
                                                                                                                                                                                                    GYPGIPPELQIAFMASLATHFSNQNSGIIFSSVETNIGNF 147
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0
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                                1e-68;
                                                                                                                                                                                                                                                                                                                                  Human 5' EST secreted protein SEQ ID No 307.
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                                         0; Mismatches
                     Score 792.5;
                                                              1 MLWRQLIYWQLLALFFLPFCLCQDEYME------
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                                                                                                                                                                                                                                                                  AAY11485 standard; Protein; 128 AA
                                Pred
                    58.0%;
66.8%;
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                                                                                                                                                                                                                                                                                                             (first entry)
                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-153781/13.
                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-JUL-1998;
                                                                                                                                                                                                                                                                                                             21-JUN-1999
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                                Best Local Simi
Matches 147;
                                                                                                                                                                                                                                                                                        AAY11485;
 Sequence
                    Query Match
                                                                                                      53
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thrombolytic activity, receptor/ ligand activity, anti-inflammatory activity, tumour inhibition activity or other activities. The products can be used in forensic, gene therapy and chromosome mapping procedures. The sequences can also be used for obtaining corresponding promoter sequences. The nucleic acids encoding the signal peptide can be used for directing extracellular secretion of a polypeptide or the insertion of a polypeptide into a membrane, or importing a polypeptide into a cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wang D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PPGIPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGERGQHGPKGEKGYPGIPPELQIAF 120
                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peripheral nervous system; neuropathy; central nervous system; CNS; Alzhehaer's; Parkinson's disease; Huntington's disease; Haemostatic; amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic; chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel nucleic acids and polypeptides, useful for treating disorders such as central nervous system injuries -
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0
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Yang Y,
                                                                                                                                                                                                                                                     Score 721; DB 20;
Pred. No. 4.2e-62;
0; Mismatches 0;
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tu C, Xue AJ,
Drmanac RT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAM40074 standard; Protein; 126 AA
                                                                                                                                                                                                                                     52.7%; Scc.
100.0%; Pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human polypeptide SEQ ID NO 3219.
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Wang Z, Wehrman T, X
Zhou P, Goodrich R,
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2000US-0552317.
2000US-0598042.
2000US-0620312.
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2000US-0662191.
2000US-0693036.
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including wounds and cancer
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                  The invention relates to human nucleic acids (AAIS7798-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as latchimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the Activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, arthritis and inflammation, leukaemias and
                                                                                                                                                                           Note: The sequence data for this patent did not form part of the printed
                                                                                                                                                                                                                                                                                                                                 Murison JG;
                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                          121 MASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYV 180
                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Skin; dermal papilla; keratinocyte; neonatal foreskin fibroblast; embryonic skin cell; keratinocyte stem cell; transit amplifying cell; secreted; transmembrane; inflammation; cancer; neurological disease; anglogenesis; tumour vascularisation; growth disorder; developmental disorder; kin wound; hair follicle disorder; anti-inflammatory; cytostatic; neuroprotective; vulnery.
                                                                                                                                                                                                                                                                                      Novel polynucleotides useful for the treatment of various conditions
                                                                                                                                                                                                                                                                                                                    181 YLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGALHGDHORFSTFAGF
                                                                                                                                                                                                                                                      ó:
                                                                                                                                                                                                                               Length 126;
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                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                               48.5%; Score 663; DB 22; 100.0%; Pred. No. 1.8e-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Onrust R,
Example 5; SEQ ID NO 3219; 10078pp; English.
                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Watson JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY75969 standard; Protein; 105 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rat skin cell protein, SEQ ID 147.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-NZ00051.
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                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sleeman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-072177/06.
                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                           126 AA;
                                                                                                                                                                 C.N.S disorders.
                                                                                                                                                                                                                                                                                                                                                               LLFETK 246
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09-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Strachan L,
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                                                                                                                                                                                                                                                     126;
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                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                 Query Match
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                                                                                                                                                                                                                                            Best Local
                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                               241
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AAY75969
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                                                            The invention relates to novel nucleic acid sequences derived from rat dermal papilla, human keratinocytes and neonatal foreskin fibroblasts, and mouse embryonic skin, keratinocyte stem cells and transit amplifying cells. Polypeptides of the invention may be used to treat inflammation, cancer and neurological diseases. The proteins may be used to stimulate the growth and motility of keratinocytes, to inhibit the growth of cancer cells, to modulate angiogenesis and tumour vascularisation, to modulate skin inflammation, to modulate epithelial cell growth and to inhibit binding of HIV-1 to leukocytes. The invention may also be used to treat growth and developmental defects, skin wounds and hair follicle disorders. Sequences AAY75942-Y76123 represent polypeptides encoded by cDNA sequences AAY75942-Y76123 represent polypeptides encoded by cDNA sequences AAY75942-Y76121 represent or human skin cell types. Sequences AAY75942-Y75947, AAY76020-Y76021, AAY76094-Y76104 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Murison JG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Skin; dermal papilla; keratinocyte; neonatal foreskin fibroblast; embryonic skin cell; keratinocyte stem cell; transit amplifying cell; secreted; transmembrane; inflammation; cancer; neurological disease; anglogenesis; tumour vascularisation; growth disorder; developmental disorder; kin wound; hair follicle disorder; anti-inflammatory; cytostatic; neuroprotective; vulnery.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY76119 are proteins with an N-terminal signal sequence, indicating that they are secreted. Sequences AAY75986-Y75989, AAY76061-Y76071, AAY76106-Y76109 and AAY76121-Y76122 are proteins with one or more
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel polynucleotides useful for the treatment of various conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MLWRQLIYWQLLALFFLPFCLCQDEYMESPQTGGLPPDCSKCCHGDYSFRGYQGPPGPPG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 PPGIPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGERGQHGPKG 105
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 582; DB 21
Pred. No. 1e-48;
2; Mismatches
Claim 4; Page 112-113; 235pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rat skin cell protein, SEQ ID NO: 280.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Watson JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY76025 standard; Protein; 105 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            putative transmembrane domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             42.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-NZ00051
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 93.3
Matches 98; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-072177/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         105 AA;
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09-NOV-1998;
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dermai papilla, human keratinocytes and meonatal foreskin fibroblasts, and mouse embryonic skin, keratinocytes stem cells and transit amplifying cells. Polypeptides of the invention may be used to treat inflammation, cancer and neurological diseases. The proteins may be used to stimulate the growth and motility of keratinocytes, to inhibit the growth of cancer cells, to modulate angiogenesis and tumour vascularisation, to modulate skin inflammation, to modulate skin inflammation, to modulate spithelial cell growth and to inhibit binding of HIV-1 to leukocytes. The invention may also be used to treat growth and developmental defects, skin wounds and hair follicle disorders. Sequences AAY75942-Y75947, AAY76012, AAY76012, AAY76014, AAY76014, AAY76014, AAY760119 are proteins with an N-terminal signal sequence, indicating that they are secreted. Sequences AAY75986-Y75989, AAY76019, AAY76019 and AAY76119 are proteins with one or more
                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                             9
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                                                                                                                                                                                                                                                                                                                                                                                                       1 MLWRQLIYWQLLALFFLPFCLCQDEYMESPQTGGLPPDCSKCCHGDYSFRGYQGPPGPPG
                                                                                                                                                                                                                                                                                                                                                                                                                         nootropic; neuroprotective; vulnerary; immunomodulatory; vaccine; keratinocyte growth stimulation; cancer; angiogenesis inhibition; inflammation; neurological disease.
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                                                         novel nucleic acid sequences derived
                                                                                                                                                                                                                                                                                                                                                    21; Length 105;
                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  skin cell; cytostatic; antiinflammatory; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PPGIPGNHGNNGANGATGHEGAKGEKGDKGDLGPRGERGQHGPKG 105
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Pred. No. 1e-48;
                                                                                                                                                                                                                                                                                                                                                                              2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB55908 standard; Protein; 105 AA
                            Claim 4; Page 168; 235pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Skin cell protein, SEQ ID NO: 147.
                                                                                                                                                                                                                                                                                         putative transmembrane domains.
                                                                                                                                                                                                                                                                                                                                                  42.6%;
 including wounds and cancer
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                                                      The invention relates to
                                                                                                                                                                                                                                                                                                                                                                            98; Conservative
                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                    105 AA;
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New isolated polynucleotide used in the identification of genetic disorders and encoding polypeptides used for treating inflammatory disease, cancer and neurological diseases -

Kumble KD,

Sleeman M,

Watson JD, Strachan L, Onrust R, (GENE-) GENESIS RES & DEV CORP LTD.

WPI; 2001-007495/01. N-PSDB; AAC99566, AAC99776.

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                                  The present sequence is a polypeptide which is expressed in mammalian skin cells. The polypeptide is useful for stimulating keratinocyte growth and motility, inhibiting the growth of cancer cells, modulating angiogenesis, inhibiting angiogenesis and vascularisation of tumours, modulating skin inflammation, stimulating the growth of epithelial cells, inhibiting the binding of human immunodeficiency virus (HIV)-1 to leukocytes, and treating inflammatory disease, cancer and neurological diseases. The polymuclectide can be used as a marker, in the identification of genetic disorders, and for the design of oligonuclectides for examining expression patterns.
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                                                                                                                                                                                                                                                                                          Length 105;
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                                                                                                                                                                                                                                                                                        Score 582; DB 22;
Pred. No. 1e-48;
2; Mismatches 5;
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Claim 4; Page 147; 352pp; English.
                                                                                                                                                                                                                                                                                        42.6%;
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Best Local Similarity 93.3%
                                                                                                                                                                                                                                                   105 AA;
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1 MLWRQLIYWQLLALFFLPFCLCQDEYMESPQTGGLPPDGSKCCHGDYSFRGYQGPPGPPG 60
                    Sequence 5, Sequence 138 Sequence 3, Sequence 3, Sequence 2, Sequence 6, Sequence 66, Sequence 66, Sequence 12, Sequence 12, Sequence 7, Sequence 7,
                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 147, Application US/09188930A

Sequence 147, Application US/09188930A

GENERAL INCORMATION:
APPLICANT: Watson, James D.
APPLICANT: Strachan, Lorna
APPLICANT: Steeman, Matthew
APPLICANT: Ornest, Rene
TITLE OF INVENTION: and Methods For Their Use
FILE REFERENCE: 11000-1011c1
CURRENT APPLICATION NUMBER: US/09/188,930A

CURRENT FILING DATE: 1998-11-09
NUMBER OF SEQ ID NOS: 348

SOFTMANE: FastSEQ for Windows Version 3.0
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Patent No. 6150502
GENERAL INFORMATION:
APPLICANT: Watchan, Lorna
APPLICANT: Strachan, Matthew
APPLICANT: Orlvas, Rene
APPLICANT: Murison, James Greg
TITLE OF INVENTION: and Methods For Their Use
FILLE REFERENCE: 11000.1011c1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 PPGIPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGERGQHGPKG 105
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US-09-140-804-5

US-09-10-804-7

US-08-613-911-3

US-09-029-348-3

US-09-029-348-3

US-09-029-348-2

US-09-029-348-2

US-09-029-348-3

US-08-07-609-716-66

US-08-478-025-33

US-08-478-028-45-66

US-08-55-669-12

US-08-944-168-9

US-08-794-795-7

US-08-794-795-7
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Best Local Similarity 93.3%;
Matches 98; Conservative
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Copyright (c) 1993 - 2003 Compugen Ltd
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APPLICANT: Strachan, Lorna
APPLICANT: Strachan, Lorna
APPLICANT: Steeman, Matthew
APPLICANT: Onrust, Rene
APPLICANT: Murison, James Greg
TITLE OF INVENTION: Compositions Isolated From Skin Cells
TITLE OF INVENTION: COMPOSITIONS OF Their Use
FILE REFERENCE: 11000.1011c1
CURRENT APPLICATION NUMBER: US/09/188,930A
CURRENT FILING DATE: 1998-11-09
NUMBER OF SEQ ID NOS: 348
SOTTWARE: FRSESQ for Windows Version 3.0
                                                                                                                                             Length 105;
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Pred. No. 2.1e-51;
2; Mismatches 5;
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             NUMBER OF SEQ ID NOS: 348
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 280
                                                                                                                                                                                                                                                                                                                                                                               Sequence 294, Application US/09188930A Patent No. 6150502 GENERAL INFORMATION:
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CURRENT FILING DATE: 1998-11-09
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Best Local Similarity
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                                                                                             ; ORGANISM: Rat
US-09-188-930-280
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ORGANISM: Rat
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US-08-463-911-2
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Patent No. 6461821
GENERAL INFORMATION:
APPLICANT: Otsuka Pharmaceutical Co., Ltd.
APPLICANT: Otsuka Pharmaceutical growth inhibitory composition, a
TITLE OF INVENTION: Smooth muscle growth inhibitory composition, a
TITLE OF INVENTION: therefor
FILE REFERENCE: P98-51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 247;
                                                                                                                                                                    Brook, Smith & Reynolds, P.C.
                                                                        A NOVEL SERUM PROTEIN PRODUCED
                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/463,911
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31.5%; Pred. No. 7.4e-22;
tive 40; Mismatches 102;
                 APPLICANT: Scherer, Philipp E.
APPLICANT: Lodish, Harvey F.
TITLE OF INVENTION: A NOVEL SERUM PROTEIN PROI TITLE OF INVENTION: A SECLUSIVELY IN ADIPOCYTES CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
REGIENATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: WH195-05
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 861-640
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                             IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                       E: Hamilton, Brool
Two Militia Drive
                                                                                                                                                                                                                                                                                                                                         Floppy disk
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Best Local Similarity 31.5%
Matches 81; Conservative
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MOLECULE TYPE: protein
                                                                                                                                                                                                                                               Massachusetts
                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             530
                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
                                                                                                                                                                                             STREET: Two Mil CITY: Lexington
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                COUNTRY: US
                                                                                                                                                                         ADDRESSEE:
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US-09-530-423-2
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Query Match
21.5%
Best Local Similarity 34.5%
Matches 76; Conservative
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US-09-140-804-3
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Matches 76; Conserv
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LENGTH: 244
TYPE: PRT
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                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                 53 QGP----PGPPGP-----PGIPGNHGNNGANGATGHEGAKGEKGDKGD---LGPR---GE 97
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                                                                                                                                                                                                                 Length 231;
                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Scherer, Philipp E.
APPLICANT: Lodish, Harvey F.
TITLE OF INVENTION: A NOVEL SERUM PROTEIN PRODUCED TITLE OF INVENTION: EXCLUSIVELY IN ADIPOCYTES NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C. STREET: Two Militia Drive
                                                                                                                                                                                                                DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            208 AVLKLAKGDEVWLRM-GNG---ALHGDHQRFSTFAGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21.5%; Score 293.5; DB 4 34.5%; Pred. No. 7.6e-22; Ive 35; Mismatches 78
                                                                                                                                        TYPE: PRT : ORGANISM: Abdominal fat tissue from myoma uteri US-09-530-423-2
CURRENT APPLICATION NUMBER: US/09/530,423
CURRENT FILING DATE: 2000-05-01
PRIOR APPLICATION NUMBER: JP H9-297569
PRIOR FILING DATE: 1997-10-29
NUMBER OF SEQ ID NOS: 4
SOFTWARE: PATENTIN VEr. 2.0
SEQ ID NO 2
LENGTH: 231
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ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: 34,227
REFERENCE/DOCKET NUMBER: WH195-05
TELECHONE: (617) 861-6240
TELEPHONE: (617) 861-624
TELEFAX: (617) 861-634
SEQUENCE CHARATION: 7:
SEQUENCE CHARATICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/463,913
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Patent No. 5869330
GENERAL INFORMATION:
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MEDIUM TYPE: FLOPPy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                              Ouery Match
Best Local Similarity 34.5%
Matches 76; Conservative
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STATE: Massachusetts
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; MOLECULE TYPE: protein
US-08-463-911-7
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US-08-463-911-7
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                                                                                               53 QGP----PGPPGP-----PGIPGNHGNNGNNGATGHEGAKGEKGDKGD---LGPR---GE 97
                                                                                                                                              23 QGPGVLLPLPKGACTGWMAGIPGHPGHNGAPGRDGTPGEKGEKGEKGDPGLIGPKGDIGE 82
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                                                 31;
  Length 244;
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                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INFUNION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
TITLE REFERENCE: 97-49
CURRENT PAPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEO for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: Bossone, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                           201 VLLHLEVGDQVWLQVYGEGERNGLYADNDNDSTFTGFLLY 240
                                                                                                                                                                                                                                                                                                                                                                                               208 AVLKLAKGDEVWLRM-GNG---ALHGDHQRFSTFAGFLLF 243
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34.5%; Pred. No. 8.2e-22;
Live 35; Mismatches 78;
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dlarity 34.5%; Pred. No. 8.2e-22;
Conservative 35; Mismatches 78;
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; Patent No. 6406884
; GENERAL INFORMATION:
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6 LIYWQLLALFFLPFCLCQDEYMESPQTGG--LPPDCSKCCHGDYSFRGYQGPPGPPGPPG 63
                                        RESULT 10
US-09-140-804-8
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TYPE: PRT
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LENGTH: 247
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Patent No. 6461821

GENERAL INFORMATION:
APPLICANT: Otsuka Pharmaceutical Co., Ltd.
APPLICANT: Otsuka Pharmaceutical Co., Ltd.
TITLE OF INVENTION: Smooth muscle growth inhibitory composition, a TITLE OF INVENTION: diagnostic method for arteriosclerosis and a kit TITLE OF INVENTION: diagnostic method for arteriosclerosis and a kit TITLE OF INVENTION: diagnostic method for arteriosclerosis and a kit TITLE OF INVENTION: 0198-51

CURRENT FILING DATE: 2000-05-01

PRIOR PRILING DATE: 2000-05-01

PRIOR FILING DATE: 1997-10-29

NUMBER OF SEQ ID NOS: 4

SOFTWARE: Patentin Ver. 2.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    143 YDGSTGKFHCNIPGLYYFAYHITVY -- MKDVKVSLFKKDKAMLFTYDQYQENNVDQASGS 200
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Pred. No. 8.2e-22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Abdominal fat tissue from myoma uteri
US-09-530-423-1
                                                                                                                                                                                                                                               35; Mismatches
FILE REFERENCE: 7853-144
CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 20
LENGTH: 244
                                                                                                                                                                                                               21.5%;
34.5%;
                                                                                                                                                                                                             Query Match
21.5%
Best Local Similarity 34.5%
Matches 76; Conservative
                                                                                                                                                        ; ORGANISM: Homo sapiens US-09-336-536-20
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LENGIH: 244
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US-09-530-423-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64 IPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGER---GQHGPKGEKGYP-----GIPP 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        49 HPGHNGTPGRDGRDGTPGEKGEKGDAGLLGPKGETGDVGMTGAEGPRGFPQTPGRKGEPG 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             115 E----LQIAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMM 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    169 VY--MKDVKVSLFKKDKAVLFTYDQYQEKNVDQASGSVLLHLEVGDQVWLQVYGDGDHNG 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 LIYWQLLALFFLPFCLCQDEYMESPQTGG--LPPDCSKCCHGDYSFRGYQGPPGPPG 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 LILQALLFILLIP-SHAEDDVTTTEELAPALVPPRGTCA------GWMA-----GIPG 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            171 KHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRM-GNG---A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21.0%; Score 287; DB 4; Length 24 31.9%; Pred. No. 3.8e-21; cive 40; Mismatches 101; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-30
                                                  GENERAL INFORMATION:
APPLICANT: Sheppard, Paul O.
APPLICANT: Humes, Jacqueline M.
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOGS
FILE REFERENCE: 97-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/118,408A CURRENT FILING DATE: 1998-07-17
EARLIER APPLICATION NUMBER: 60/053,154
EARLIER FILING DATE: 1997-07-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/140,804
CURRENT FILING DATE: 1998-08-26
EARLIER APPLICATION NUMBER: 60/056,983
EARLIER FILING DATE: 1997-08-26
NUMBER OF SEQ ID NOS: 47
                                                                                                                                                                                                                                                                                                         SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3, Application US/09118408A Patent No. 6265544
Sequence 8, Application US/09140804
Patent No. 6197930
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US-09-140-804-8
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Best Local Similarity
Matches 82; Conserv
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Best Local Similarity
Matches 82; Conserv
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us-09-931-836-2.rai

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20.0%; Scor
31.3%; Pred
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NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: WHIS
TELECOMMUNICATION INFORMATION:
TELEFAN: (617) 861-6240
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 31.3%
Matches 71; Conservative
       TITLE OF INVENTION: A N
TITLE OF INVENTION: EXC
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: single
                                                                                                                   Massachusetts
                                                                                                                                                                                                                                                                               CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                  FILING DATE
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US-09-370-838-185
                                                                                                               STATE: M
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                                                            64 IPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGER----GQHGPKGEKGYP-----GIPP 114
                                                                                                  115 E----LQIAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMM 170
                                                                                                                          171 KHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRM-GNG---A 226
                                                                                                                                                                            115 E----LQIAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMM 170
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                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Shepperd, Paul O.
APPLICANT: Shepperd, Paul O.
APPLICANT: Lasser, Gerald W.
APPLICANT: Lasser, Gerald W.
APPLICANT: Lasser, Gerald W.
APPLICANT: BLAShOP, Paul D.
TITLE OF INVENTION: IMMUNE FUNCTION
FILE REFERENCE: 99-12
CURRENT APPLICATION NUMBER: US/09/506,855
CURRENT FILING DATE: 2000-02-17
NUMBER OF SEQ ID NOS: 50
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 3
SEQ ID NO 3
LENGTH: 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21.0%; Score 287; DB 4; Length 24; 31.9%; Pred. No. 3.8e-21; Live 40; Mismatches 101; Indels
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Patent No. 644821
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4. Application US/08463911
Patent No. 5869330
GENERAL INFORMATION:
APPLICANT: Scherer, Philipp E.
APPLICANT: Lodish, Harvey F.
                                                                                                                                                                                                                         LHGDHQRFSTFAGFLLF 243
                                                                                                                                                                                                                                            227 LYADNVNDSTFTGFLLY 243
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          227 LHGDHQRFSTFAGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 31.99
Matches 82; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapien
US-09-506-855-3
                                                                                                                                                                                                                                                                                                                -09-506-855-3
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148 FDVMTGREGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSM------YSYEMK 198
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GEKGYPGIP-----PELQ-----IAFMASLATHFSNQNSGIIFSSVETNIGNF
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Fatent No. 644425
GENERAL INFORMATION:
APPLICANT: Reed, Steven G.
APPLICANT: Lodes, Michael J.
APPLICANT: Mohamath, Roadoh
TILLE OF INVENTION: LUNG CANCER AND DIAGNOSIS OF
TITLE OF INVENTION: LUNG CANCER AND METHODS FOR THEIR USE
TITLE OF INVENTION: LUNG CANCER AND METHODS FOR THEIR USE
CURRENT APPLICATION NUMBER: US/09/370, 838
CURRENT FILING DATE: 1999-08-09
EARLIER RILING DATE: 1999-04-02
NUMBER OF SEQ ID NOS: 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 246;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199 NSKQVSSGGALLRLQRGDEVWLSVNDYNGWV-GIEGSNSVFSGFLLF 244
                                                                                        ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C. STREET: Two Militia Drive CITY: Lexington
A NOVEL SERUM PROTEIN PRODUCED EXCLUSIVELY IN ADIPOCYTES
                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIOW TYPE: FLOPPY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/463,911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 274; DB 2;
Pred. No. 7.6e-20;
9; Mismatches 79
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   56 PGPPGPPGIPGNHGN-----NGNNGATGHEGAKGEKGD------KGDLGPRGERGQ 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HGPKGEKGYPGIPPELQIAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVS 160
                                                                                                                                                                                                                                                                           LMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGALHGDHQRFSTFAGFL 241
                                                                                                                                                                                                                                                                                                                                                                                                               75 GATGHEGAKGEKGDKGDLGPRGERGQ-----HGPKGE----KGYPGIPPELQIAFMAS 123
                                                                                                                                                                                                                                                                                                                         124 LATHFS--NQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVY 181
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                                                                                                                  Query Match 20.0%; Score 273; DB 4; Length 746; Best Local Similarity 29.6%; Pred. No. 4.4e-19; Matches 72; Conservative 43; Mismatches 90; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
US-09-336-536-4

i Sequence 4, Application US/09336536

patent No. 640684

GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: BOSSONE, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES THEREOF
FILE REFRENCE: 7853-144

CURRENT APPLICATION NUMBER: US/09/336,536

CURRENT PILING DATE: 1999-06-18

SOFTWARRE: PATENTING PATE: 1999-06-18

SOFTWARRE: PATENTING PATE: 1008: 75

SOFTWARRE: PATENTING PATE: 1008: 75

SOFTWARRE: PATENTING PATE: 1008: 75

SOFTWARRE: PATENTING PATE: 1008: 75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :||:::|| :: : |||:||:: OVWVQVGVGDYIGIYASIKTDSTFSGFLVY 218
SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 185
LENGTH: 746
                                                                                                                                                                                        34 GLPPDCSKCCHGDYS----FRGYQGPP-
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Best Local Similarity 32.45
Matches 68; Conservative
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CORGANISM: Homo sapiens
US-09-336-536-4
                                                       TYPE: PRT
; ORGANISM: Homo sapien
US-09-370-838-185
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743 LYQ 745
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Search completed: January 13, 2003, 10:44:35 Job time: 17 secs

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OM protein - protein search, using sw model

Run on:

January 13, 2003, 10:42:03 ; Search time 19 Seconds (without alignments) 1244.688 Million cell updates/sec

US-09-931-836-2 1367 1 MLWRQLIYWQLLALFFLPFC......LHGDHQRFSTFAGFLLFETK 246 Title: Perfect score: Sequence:

283224 seqs, 96134422 residues BLOSUM62 Gapop 10.0 , Gapext 0.5 Searched:

Scoring table:

283224 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR\_73:\* 1: pirl:\* 2: pir2:\* 3: pir3:\* 4: pir4:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

SUMMAKIES		Description		collagen alpha 1	collagen alpha	301 collagen alpha 1(x	COMPlement Subc	collagen al	hypothet	collagen	435 collagen alpha 1(V	complemen	complement	collagen al	collagen alpha	collagen	complemen	complement		collagen pi	complemen		hypothet	collagen shor	collagen 13, n	collagen	collagen alpha	type VII collad	alpha	collagen
•		OI BO					2 \$29328					1 C1HUOC						2 \$49158							A	Ä	2 A61228	ĭ	A3	1 CGHU2B
		Length D										245													423				707	712
æ		Match	21.5	20.5	20.4	20.1	20.0	19.8	19.3	18.9	18.8	18.7	18.4	18.4	18.2	18.1	17.5	17.3	16.9	16.5	16.0	15.8	15.7	15.5	15.4	15.2	15.2	15.2	14.9	4
		score	293.5	280.5	278.5	275	274	270	264.5	258.5	256.5	255	251.5	251.5	249	248	239.5	236.5	231.5	226	219	216	215	211.5	210.5	208	207.5	207.5	203.5	203.5
	Result	9	-	C4	m	4	2	9	7	Ф	ָּס	10	11	12	13	14	15	16	17	18	19	50	21	22	23	74	25	36	27	28

hibernation-relate collagen alpha 1(I	10.0.0.	collagen 1 - Caeno hypothetical prote collagen alpha 1(I	collagen alpha 1(I hypothetical prote cerebellin precurs	
C48150 A34493 A60032	A56101 B56101 S40991	A31219 T21314 S42617	CGHU7L T26812 A37873 A45225	S59856 S40495 A53019
222	000	000	- 777	000
215 171 224	1315 1774 1744	296 301 921	1466 289 193 375	1464 · 921 684
14.4	14.3	14 14 1.1.1	13.9 13.9 13.8	13.8 13.7 13.7
201 197 196	195.5 195.5 193.5	193 193 192.5	192 190.5 189	189 187.5 187
30 31	343	36 38	30 44 47 47	444

## ALIGNMENTS

	RESULT 1 JC4708	
	gelatin-l N;Alterna	gelatin-binding 28k protein precursor - human N'Alternate names: adjose specific collagen-like factor
	C; Date: [C; Access]	C.becass. nounay-1996 #sequence_revision 19-Jul-1996 #text_change 20-Sep-1999 C.bate: 10-May-1996 #sequence_revision 19-Jul-1996 #text_change 20-Sep-1999 C.becession: JC4708: JC4948
	R; Maeda,	R;Maeda, K.; Okubo, K.; Shimomura, I.; Funahashi, T.; Matsuzawa, Y.; Matsubara, K. Bjochem Rjochyws Res Commun 221 286-289 1996
	A;Title:	Affiliate cDNA cloning to communication and another adjoose specific collagen-like factor as a federance number. ICATOR with 56224171. DNAT. 6610847
	A; Access:	MARCESSION JUNEAU DOTION MOID JULEAULT, FRID OUTSOLY A A A COCOSSION JUNEAU DO A A A A A A A A A A A A A A A A A A
	A; Residue	A. No. Control of the
	A; Cross-1	A;Cross-references: DDBJ:D45371; NID:9871886; PIDN:BAA08227.1; PID:9871887
	R; Nakano,	, Y.; Tobe, T.; Choi-Miura, N.H.; Mazda, T.; Tomita, M.
	J. Bloche	em. 120, 803-812, 1996
	A; ricie: A; Referer	A;iiie: isolation and characterization of GBPZB, a novel gelatin-binding protein pur A;Reference number: JC4944; MUID:97103474; PMID:8947845
	A; Access	A,Accession: JC4944
	A; Molecui A; Residue	A;Wolecule type: protein A;Residues: 19-38:93-100:101-112:135-149:173-17A <wak></wak>
	C; Comment	t: This protein is an endogenous factor that binds with a collagen-like domai
	C;Genetic	C;Genetics:
	C; Superfa	ipmı amily: unassiqned collaqens; complement Clq carboxvl-terminal homologv
	C; Keyword	ds: adipose tissue; glycoprotein; hydroxyproline
	F; 19-244	F:19-244/Product: gelatin-binding 28kDa protein #status experimental <mat></mat>
	F;42-107,	Region: collagen-like
	F; 95/Mod1	F:95/Modified site: 4-hydroxyproline (Pro) #status experimental
	F;230/B1r	nding site: carbohydrate (Asn) (covalent) #status predicted
	Query P	Query Match 21.5%; Score 293.5; DB 2; Length 244;
	Matches	ocar Samillaring 54.5%; Fred. NO. (4-1/) 3 76; Conservative 35; Mismatches 78; Indels 31; Gaps 9;
	0у 53	3 QGPPGPPGPPGIPGNHGNNGNTGHEGAKGEKGDKGDLGPRGE 97
	Db 23	23 QGPGVLLPLPKGACTGWMAGIPGHPGHNGAPGRDGTPGEKGEKGDPGLIGPKGDIGE 82
	Qy 98	RGOHGPKGEKGYPGIPPELOIAFMASLATHFSNQNSGIIFSSVETNIGNF 147
	Db 83	83 TGVPCAEGPRGFPGIQGRKGEPGEGAYVYRSAFSVGLETYVTIPNMPIRFTKIFYNOONH 142
	Qy 148	3 FDVMTGREGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNH 207
	Db 143	:    :  : :   : :   :           :
_	Qy 208	208 AVLKLAKGDEVWLRM-GNGALHGDHQRFSTFAGFLLF 243

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collagen alpha 1(X) chain precursor - mouse
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 30-Sep-1993 #sequence_rovision 30-Sep-1993 #text_change 13-Aug-1999
C;Accession: S31216; S28807; S22215; S30127; I48299; S26397; S31830
R;Kong, R.Y.C.; Kwan, K.M.; Lau, E.T.; Thomas, J.T.; Boot-Handford, R.P.; Grant, M.E. Bur. J. Biochem. 213, 99-111, 1993
Bur. J. Biochem. 213, 99-111, 1993
A;Reference number: S31216; MUID:93238750; PMID:8477738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Accession: S30127
A;Status: preliminary
A;Status: preliminary
A;Molecule type: mRNA
A;Rolecule type: mRNA
A;Residues: 1-12, F',14-26, S',28-247,'L',249-285,'A',287-305,'F',307-416,'S',418-499
B;Apte, S.S.; Seldin, M.F.; Hayashi, M.; Olsen, B.R.
Eur. J. Biochem. 206, 217-224, 1992
A;Title: Cloning of the human and mouse type X collagen genes and mapping of the mous A;Reference number: 148299; MUID:92267014; PMID:1587271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 52-247, 'L', 249-285, 'A', 287-305, 'F', 307-416, 'S', 418-499, 'L', 501-566, 'C', 56
A; Cross-references: EMBL: X65121; NID:950483; PIDN:CAA46237.1; PID:9667031
B; Summers, T.A.; Irwin, M.H.; Mayne, R.; Balian, G.
J Blol. Chem. 263, 381-587, 1988
A; Title: Monoclonal antibodies to type X collagen. Biosynthetic studies using an anti
A; Reference number: ·S26397; MUID:88087150; PMID:2826450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: EMBL:221610; NID:g49793; PIDN:CAA79736.1; PID:g49794
R;Ellma, K.; Eerola, I.; Rosati, R.; Metsaeranta, M.; Garofalo, S.; Peraelae, M.; de
Biochem. J. 289, 247-253, 1993
A;Title: The mouse collagen X gene: complete nucleotide sequence, exon structure and
A;Reference number: $28807; MuID:93143676; PMID:8424763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: EMBL:X67348; NID:g50480; PIDN:CAA47763.1; PID:g50481
R;Ellma, K.; Metsaeranta, M.; Kallio, J.; Peraelae, M.; Eerola, I.; Garofalo, S.; de Biochim. Biophys. Acta 1130, 78-80, 1992
A;Title: Specific hybridization probes for mouse alpha-2(IX) and alpha-1(X) collagen A;Reference number: S22215; MUID:92182017; PMID:1543751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -IAFMASLATHF 128
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: mRNÅ
A;Residues: 385-450,'K',452-627 <ELA>
A;Cross-references: EMBL:X63013; NID:g49795; PIDN:CAA44741.1; PID:g49796
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Apte, S.S.; Olsen, B.R.
Matrix 13, 155-179, 1993
A;Title: Characterization of the mouse type X collagen gene.
A;Reference number: S30127; MUD:93261348; PMID:8492743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2;
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30.5%; Pred. No. 3.4e-15;
iive 34; Mismatches 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -PELQ--
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A;Residues: 'SDGYFSQ',24-26,'KQ' <SUM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-285,'A',287-680 <ELI>
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                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-680 <KON>
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A; Introns: 51/3
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Best Local Simi
Matches 73;
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A;Gene: Coll0a-1
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                                                                                                                                                                                       Signature alpha 1(X) chain precursor - chicken

NiAtternate names: type X collagen

NiAtternate names: type X collagen

C;Species: Gallus gallus (chicken)

Extracellular Matrix Genes, Sandell L.J. and Boyd C.D., eds., pp.79-114, Academic Pre A;Ritle: The molecular blology of collagens with short triple-helical domains.

A;Reference number: S2243

A;Residues: 1-674 ANINA

A;Residues: 1-674 ANINA

A;Residues: 1-674 ANINA

A;Residues: A; Nincomyay X; Rosenblum, N.D.; Olsen, B.R.

A;Reference number: A31896; MUD:89054019; PMID:2461368

A;Reference number: A31896; MUD:89054019; PMID:2461368

A;Reference number: A31896; MUD:89054019; PMID:2461368

A;Reference number: Type mRN

A;Residues: 1-75 AUNA

A;Residues: Type mRN

A;Resid
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      20.5%; Score 280.5; DB 2; 30.9%; Pred. No. 2.3e-15; ive 23; Mismatches 90;
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Matches 76; Conserva
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SFSGFL 670
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RiApte, S.S.
submitted to the EMBL Data Library, March 1992
submitted to the EMBL Data Library, March 1992
submitted to the EMBL Data Library, March 1992
A; Reference number: $30085
A; Recession: $30086
A; Molecule type: DNA
A; Residues: 'TIPFYGWVCWVCLL', 52-680 (APT>
A; Residues: 'Milital difference is probably due to translation of an intronic sequence
R; Apte, S.; Mattel, M.G.; Olsen, B.R.
R; Apte, S.; Mattel, M.G.; Olsen, B.R.
FEBS Lett. 282, 393-396, 1991
A; Reference number: $15826; MUID:91243838; PMID:2037056
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A; Residues: 561-647, CG', 649-666 <AP2>
A; Cross-references: EMBL:X58879; NID:930013; PIDN:CAA41686.1; PID:930014
A;Cross-references: EMBL:X58879; NID:930013; PIDN:CAA41686.1; PID:930014
B;Thomas, J.T.; Cresswell, C.J.; Rash, B.; Nicolai, H.; Jones, T.; Solomon, E.; Grant
Blochem, J. 280, 617-623, 1991
A;Tille: The human collagen X gene. Complete primary translated sequence and chromoso
A;Reference number: S18249; MUID:92109659; PMID:1764025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A Molecule type: mRNA
A; Residues: 547-656 KRE2A
A; Residues: 547-656 KRE2A
A; Cross-references: GB:M74050; GB:D57494; NID:9339884; PIDN:AAA61221.1; PID:9553796
A; Note: sequence extracted from NCBI backbone (NCBIN:69012, NCBIP:69014)
R; Wallis, G.A.; Rash, B.; Sweetman, W.A.; Thomas, J.T.; Super, M.; Evans, G.; Grant,
Am. J. Hum. Genet. 54, 169-178, 1994
A; Title: Amino acid substitutions of conserved residues in the carboxyl-terminal doma
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A; Residues: 1-26, T', 28-680 <THO>
A; Cross-references: EMBL: X60382; NID: 930094; PIDN: CAA42933.1; PID: 930095
A; Oross-references: EmBL: X60382; NID: 930094; PIDN: CAA42933.1; PID: 930095
A; Note: the sequence from Fig. 3 is inconsistent with that from Fig. 2 in having 532-
R; Reichenberger, E.; Aigner, T.; von der Mark, K.; Stoss, H.; Bertiling, W.
Dev. Biol. 148, 562-572, 1991
A; Title: In situ hybridization studies on the expression of type X collegen in fetal
A; Reference number: A43901; MUID: 92077285; PMID: 1743401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Species: Homo sapiens (man)
C; Species: Homo sapiens (man)
C; Date: 22-Nov-1993 #sequence_revision 03-Nov-1995 #text_change 22-Jun-1999
C; Caccession: S26396; S36086; S18265; S18249; A43901; I51870; S21856
R; Reichenberger, E.; Beier, F.; Luvalle, P.; Olsen, B.R.; von der Mark, K.; Bertling, FEBS Lett. 311, 305-310, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Genomic organization and full-length cDNA sequence of human collagen A;Reference number: S26396; MUID:93012005; PMID:1397333
A;Accession: S26396
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-680 <REI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GEKGYPGIP------PELQ----IAFMASLATHFSNQNSGIIFSSVETNIGNF 147
                                                                                                                                                               51 GYQGPPGPPGPPGIPGNHGNNGNNGATGH-----EGAKGEKGDKGDLGPRGERGQHGPK 104
                                                                                  Gaps
                                                                                                                                                                                                                   32 GCYGIPGMPGMPGAPGKDGHDGLQGPKGEPGIPAVPGTQGPKGQKGEPGMPGHRGKNGPR 91
                                                                                                                                                                                                                                                                                                                                                                                                    92 GTSGLPGDPGPRGPPGEPGVEGRYKQKHQSVFTVTRQTTQYPEANALVRFNSVVTNPQGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSM-----YSYEMK
                                                                                  48;
Length 246;
                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           199 GKSDTSSNHAVLKLAKGDEVWLRMG--NGALHGDHQRFSTFAGFLLF 243
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20.0%; Score 274; DB 2; 1
31.3%; Pred. No. 2.8e-15;
11ve 29; Mismatches 79;
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                                                                                          71; Conservative
        Query Match
Best Local Similarity
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R;Petry, F.; Reld, K.B.M.; Loos, M.
Eur. J. Blochem. 209, 129-134, 1992
As:fittle: Isolation, sequence analysis and characterization of cDNA clones coding for ecerebellin.
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C;Superfamily: complement subcomponent Clq chain A; complement Clq carboxyl-terminal
F;122-245/Domain: complement Clq carboxyl-terminal homology <
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C;Species: Mus musculus (house mouse)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 20-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   collagen alpha 1(X) chain precursor – bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 21-Nov-1993 #sequence_revision 23-Feb-1996 #text_change 13-Aug-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |: | || || || || || || || || 434 GHNGEAGPRGVPGIAVKGLNGPTGPPG 493
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                                                                                                                                                  PANGAPIPFDEILYNRQOHYDPRSGIFTCKIPGIYYFSYHV--HVKGTHVWYGLYKNGTP 620
            EPGLPGPPGPPGPPGQAVMPDGFIKAGQRPRLSGMPLVSANHGVTGMPVSAFTVILSKAY 562
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                                                                                                                                                                                                                                                          189 VFSMYSYE--MKGKSDTSSNHAVLKLAKGDEVWLRMGN---GALHGDHQRFSTFAGFLL 242
                                                                                                                                                                                                                                                                                                          --TMYTYDEYSKGYLDQASGSAIMELTENDQVWLQLPNAESNGLYSSEYVHSSFSGFLV 677
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A;Accession: S29328
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C; Superfamily: complement C1g carboxyl-terminal homology
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les 79; Conserv
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A; Actors: 52/1
A; Introns: 52/1
A; Note: a defect in this gene may cause Schmid metaphyseal chondrodysplasia
C; Complex: type x collagen may be a homotrimer
C; Complex: type x collagen may be a homotrimer
C; Punction:
C; Function: structural component of extracellular fibrous polymer specifically and tr
C; Superfamily: collagen alpha 1(VIII) chain; complement Clg carboxyl-terminal homology
C; Seywords: coiled coil; extracellular matrix; glycoprotein; homotrimer; hydroxylysine;
F; 1-18/Domain: signal sequence #status predicted <NG2>
F; 19-56/Domain: amino-terminal nonhelical #status predicted <NG2>
F; 19-56/Domain: amino-terminal nonhelical #status predicted <NC2>
F; 520-680/Domain: amino-terminal nonhelical #status predicted <NC2>
F; 53-679/Domain: complement Clg carboxyl-terminal homology <Cl0>
F; 617/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                     A; Accession: 151870
A; Status: translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Residues: 520-597, 70', 599-680 < WAL>
A; Cross-references: GB:S68531; NID:9545180; PIDN:AAC60615.1; PID:9545181
A; Otc: mutant sequence from patient with metaphyseal chondrodysplasia type Schmid
A; Note: metant sequence with 614-Pro is also described
C; Comment: Prolines and lysines at the third position of the tripeptide repeating unit
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C;Species: Homo sapiens (man)
C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 02-Sep-2000
C;Accession: T14782
R;Ottenwelder, B:, Obermaier, B:; Mewes, H.W.; Gassenhuber, J.; Wiemann, S:
B;Umhitted to the Protein Sequence Database, August 1999
A;Reference number: 218184
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419 GLPGPVGPA--GAKGMPGHNGEAGPRGAPGIPGTRGPIGPPGIPGFPGSKGDPGSPGPPG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------IAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
19.8%; Score 270; DB 1; Length 68
Best Local Similarity 28.5%; Pred. No. 1.7e-14;
Matches 75; Conservative 28; Mismatches 102; Indels
              A; Reference number: I51870; MUID:94136476; PMID:8304336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Experimental source: adult uterus; clone DKFzp586B0621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----KGDLGPRGERGOHGPKGEKGYPGIP----
                                                                                                                                                                                                                                                                        A)Gene: GDB:COL10A1
A;Cross-references: GDB:128635; OMIM:120110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GN---GALHGDHQRFSTFAGFLL 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PNAESNGLYSSEYVHSSFSGFLV 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A, Accession: T14782
A, Status: preliminary
A, Molecule type: mRNA
A, Residues: 1-219 < <pre>A, Cross-references: EMBL:AL110261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Note: DKFZp586B0621.1
                                                                                                                                                                                                                                                         :Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            118
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collagen alpha l(VIII) chain precursor - rabbit
C;Species: Oryccolagus cuniculus (domestic rabbit)
C;Decies: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: A34246
R;Yamaguchi, N.; Benya, P.D.; van der Rest, M.; Ninomiya, Y.
J. Biol. Chem. 264, 16022-16029, 1989
A;Title: The cloning and sequencing of alphal(VIII) collagen cDNAs demonstrate that tomains similar to those of type X collagen.
A;Reference number: A34246; MUID:89380199; PMID:2476437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-744 < YANA
A; Cross-references: CBH.305042; NID:g164895; PIDN:AAA31204.1; PID:g164896
C; Superfamily: collagen alpha 1(VIII) chain; complement C1q carboxyl-terminal homolog
F; 1-20/Domaln: signal sequence #status predicted <SIG>
F; 21-744/Product: collagen alpha 1(VIII) chain #status predicted <MAT>
F; 21-17/Region: amino-terminal nonhelical
                                                                                                                                         ΄,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ė
                                                                                                                                                                                                                                                        ---KGDLGPRGERGQ 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101 HGPKGEKGYPGIPPELQIAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVS 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                      5 PGHPGLPGTPGHHGSQGLPGRDGRDGRDGAPGAPGEKGEGGRPGLPGPRGDPGPRGEAGP 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             544 PGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPPTPAPQGEYLPDMGLGIDGVKTPHAYAA 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------AFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFF 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVYFFTFSMMKHEDVEEVYVY --LMHNGNTVFSMYSYEMKG--KSDTSSNHAVLKLAKGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           486 GIPGD--QGLQGPPGIPGITGPSGPIGPPGIPGPKGEPGLPGPPGFPGVGKPGVAGLHGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        604 KKGKNGGPAYEMPAFTAELTAPFPPVGAPIKFDRILYNGRQNYNPQTGIFTCEVPGVYYF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    166 TFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGN-
                                                                                                                                  27;
Length 219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 744;
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                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34 GLPPDCSKCCHGDYSFRGYQGPPGPPGPPGIPGNHGNNGNNGATGHEGA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
19.3%; Score 264.5; DB 2; 32.4%; Pred. No. 1.5e-14; ive 36; Mismatches 79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18.9%; Score 258.5; DB 1; ilarity 30.3%; Pred. No. 1.7e-13; Conservative 24; Mismatches 103;
                                                                                                                                                                                                                                                 56 PGPPGPPGIPGNHGN-----NGNNGATGHEGAKGEKGD----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EVWLRMGNG---ALHGDHQRFSTFAGFLLF 243
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A; Molecule type: mRNA
A; Realdues: 28-253 CREL>
A; Realdues: 28-253 CREL>
A; Cross-references: EMBL:X03084
A; Note: the authors translated the codon ACA for residue 46 as Ile
B; Reald, K.B.M.
J: 179, 367-371, 1979
A; Title: Complete amino acid sequences of the three collagen-like regions present in A; Reference number: A90304; MUID:80020137; PMID:486087
A; Recession: B90304
A; Molecule type: protein
A; Residues: E: 29-84, D', 86-99, 'P', 101-135 CRES>
R; Residues: E: 29-84, D', 863-9686, 1978
A; Title: Amino acid sequence of the N-terminal 108 amino acid residues of the B chain A; Reference number: A90301; MUID:79041552; PMID:708376
A; Molecule type: protein
A; Molecule type: protein
ivation of Cir (enzyme), Cls (proenzyme), and the other eight components of complemen C; Comment: The Clg subcomponent is composed of nine subunits, six of which are disulf dimers of the C chain. Equimolar amounts of the A, B, and C chains are found after r
                                                                                                                                                                                                  A; Cross-references: GDB:128132; OMIM:120575
A; Map position: 1p36.3-1p34.1
A; Introns: 60/3
C; Superfamily: complement subcomponent Clq chain A; complement Clq carboxyl-terminal C; Reywords: complement pathway; 9lycoprotein; homodimer; hydroxylysine; hydroxyprolin F;1-28/Domain: signal sequence *status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                    F:29-245/Product: complement subcomponent Clq chain B *status predicted <MAT>
F:31-114/Domain: collagenous, triple helix <COL>
F:31-124/Domain: collagenous, triple helix <COL>
F:121-244/Domain: complement Clq carboxyl-terminal homology <CIO>
F:32.51.51.64 bonds: Interchain *status experimental
F:36.39,42.45,54.63.81,93.96,99.105/Modified site: 4 hydroxyproline (Pro) *status experimental
F:57,72.75/Modified site: 5-hydroxylysine (Lys) *status experimental
F:75/Binding site: carbohydrate (Lys) (covalent) *status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biochem. J. 231, 729-735, 1985
A;Title: Molecular cloning and characterization of the complementary DNA and gene
A;Reference number: A23422; MUID:86076906; PMID:3000358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for the second position as Arg; they
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     148 QGDYDTSTGKFTCKVPGLYYFVYHA---SHTANLCVLLYRSGVKVVTFCGHTSK-TNQVN 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36 PGMPGLP------GAPGKDGYDGLPGPKGEPGIPAIPGIRGPKGQKCEPGLPGHPGKN 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30 PQTGGLPPDCSKCCHGDYSFRGYQGPPGPPGPPGIPGNHGNNGATGHEGAKGEKGDK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90 GDLGPRGERGQHGPKGEKGYPG----IPPELQIAFMASLATHF-SNQNSGIIFSSVETNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      145 GNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 255; DB 1; Length 245; Pred. No. 1e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ch 18.7%; Score 255; DB 1; Length 24; Similarity 33.5%; Pred. No. 1e-13; 75; Conservative 22; Mismatches 101; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      205 SNHAVLKLAKGDEVWLRMGN----GALHGDHQRFSTFAGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     204 SGGVLLRLQVGEEVWLAVNDXXDMVGIQGSD----SVFSGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A;Residues: 'Hs',1-32 <REI>
A;Note: the authors translated the codon ACT
A;Accession: A23422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
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                                                                                                                                                                                         A; Gene: GDB:C1QG
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                                                                                                                                                           C; Genetics:
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                                                                                                                                                                        C., McCession: 513455
R; Muragaki, Y.; Mattei, M.G.; Yamaguchi, N.; Olsen, B.R.; Ninomiya, Y.
Eur. J. Blochem. 197, 615-622, 1991
A; Title: The complete primary structure of the human alpha-1(VIII) chain and assignment
A; Reference number: $15435; MUD: 91231001; PMID: 2029894
A; Accession: $15435
A; Status: preliminary
A; Mocession: $15435
A; Status: preliminary
A; Mocession: $15435
A; Status: preliminary
A; Mocession: $15435
A; Cross-references: EMBL: X57527; NID: 930081; PIDN: CAA40748.1; PID: 930082
C; Genetics:
C; Genetics:
A; Cross-references: GDB: 128104; OMIM: 120251
A; Map position: 341.1.3431.2
C; Superfamily: collagen alpha 1(VIII) chain; complement Clq carboxyl-terminal homology
F; 120/Pomain: signal sequence #status predicted <SIG>F; 21-117/Region: anino-terminal nonhelical
F; 118-571/Region: Interrupted helical
F; 118-571/Region: carboxyl-terminal nonhelical
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A;Title: Complete amino acid sequences of the three collagen-like regions present in sub A;Title: Complete amino acid sequences of the three collagen-like regions present in sub A;Reference number: A90304; MUID:80020137; PMID:486087
A;Accession: A03207
A;Accession: A03207
A;Accession: A03207
A;Accession: A;Acces
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Blochem. J. 274, 481-490, 1991
A/Title: Characterization and organization of the genes encoding the A-, B- and C-chains A; Reference number: S14350; MUID:91174759; PMID:1706597
A; Accession: S14351
A; Status: not compared with conceptual translation
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                                      collagen alpha 1(VIII) chain precursor - human
C;Species: Homo sapiens (man)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 13-Aug-1999
C;Accession: S15435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGN- 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34 GLPPDCSKCCHGDYSFRGYQGPPGPPGPPGIPGNHGNNG-----NNGATGHEGAKGE 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------AFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617-743/Domain: complement Clq carboxyl-terminal homology <C10>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25; Mismatches 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18.8%; Score 256.5; DB 2 29.9%; Pred. No. 2.4e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  86 KGDKGDLGPRGERGQHGPKGEKGYPGIP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --GALHGDHQRFSTFAGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1: |:|:|:|:|
722 QAAGLYAGQYVHSSFSGYLLY 742
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A; Residues: 1-245 <SEL>
R; Reid, K.B.M.
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--GALHGDHQRFSTFAGFLLF 243
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Best Local Similarity 30.00,
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                                                                                                                                                                                                                        119
                                                                                                                                                                                                                                                                                                                                 166
                                                                                                                                                                                                                                                                                                                                                                                                                                       225
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A; Residues: 28-99, 'P', 101-195 cRE3>
B; Reid, K.B.M.; Gagnon, J.; Frampton, J.
Biochem. J. 203, 559-569, 1982
A; Title: Completion of the amino acid sequences of the A and B chains of subcomponent C1
A; Recense number: A90315; MUD:82283890; PMID:6981411
A; Riceitence number: A90315; MUD:82283890; PMID:6981411
A; Receitence number: A90315
A; Residues: 136-234 cRE4>
A; Receiter: A90315; MUD:820390; and the other eight components of complement is composed of nine subunits, six of which are disulfide C; Generics: Game: Gallonian Equimolar amounts of the A, B, and C chains are found after redu C; Generics: Gallonian Equimolar amounts of the A, B, and C chains are found after redu A; Gene: GDB:c108
A; Map position: 1p36.3-1p34.1
C; Superfamily: complement subcomponent C1q chain B *status experimental cyllonature carboxylic acid (clan) (in mature form) *status experiment F; 127-7Domain: complement to q carboxyl-terminal homology cC10, F; 127-7Domain: complement c1q carboxyl-terminal homology cC10, F; 128-249/Domain: complement to q carboxyl-terminal homology cC10, F; 128-249/Domain: complement to q carboxyl-terminal homology cC10, F; 128-349/Domain: collegence status carboxylic acid (clan) (in mature form) *status experiment F; 35, 38, 41, 35, 56, 65, 83, 86, 101.10/Additied site: 4-hydroxylpsine (Lys) *status experimental F; 55, 62, 77, 92, 98, 110/Moditied site: 5-hydroxylysine (Lys) *status experimental F; 55, 62, 77, 92, 98, 110/Additied site: 5-hydroxylysine (Lys) (covalent) *status experimental
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C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: S2239
R;Minomiya, Y.; Castagnola, P.; Gerecke, D.; Gordon, M.K.; Jacenko, O.; LuValle, P.; Mc maguchi, N.; Olsen, B.R.
in Extracellular Matrix Genes, Sandell L.J. and Boyd C.D., eds., pp.79-114, Academic Pr A; Aitle: The molecular biology of collagens with short triple-helical domains.
A;Reference number: S22343
A;Reference number: S2243
A;Recession: S2329
A;Accession: S2329
A;Accession: S2329
A;Accession: J-744 < NIN>
C;Superfamily: collagen alpha 1(VIII) chain; complement Clq carboxyl-terminal homology F;617-743/Domain: complement Clq carboxyl-terminal homology
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91 PKGPMGPKGGPGAPGAPGPKGESGDYKATQKIAFSATRIINVPLRRDQTIRFDHVITNMN 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            43 CHGDYSFRGYQGPPGPPGP---PGIPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGERG 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -- MMKHEDVEEVYVYLMHNGNTVFSMYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               151 NNYEPRSGKFTCKVPGLYYFTYHASSRGNLCVNLMRGRERAQKVVTFCDYAYNTF----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41;
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ilarity 29.9%; Pred. No. 6.2e-13;
Conservative 24; Mismatches 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18.4%; Score 251.5; DB 1.
31.7%; Pred. No. 2.1e-13;
ive 27; Mismatches 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   collagen alpha 1(VIII) chain - chicken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              146 NFFDVMTGRFGAPVSGVYFFTFS----
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Best Local Similarity 31.7
Matches 73; Conservative
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34 GLPPDCSKCCHGDYSFRGYQGPPGPPGPPGIPGNHGNNGATGHEGA-----KGE 85

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A, Cross-references: GDB:127812; OMIM:120252
A; Map position: 1p34.3-1p32.3
C; Superfamily: collagen alpha I(VIII) chain; complement Clq carboxyl-terminal homolog
F; 1-11/Domain: amino-terminal nonhelical (fragment) #status predicted <NC2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the short chain collagen f
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Collagen alpha 2(VIII) chain - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 03-Nov-1995 #sequence_revision 03-Nov-1995 #text_change 13-Aug-1999
C;Accession: A57131
R;Muragaki, Y; Jacenko, O; Apte, S; Mattei, M.G.; Ninomiya, Y; Olsen, B. A;Title: The alpha2(VIII) collagen gene. A novel member of the short chain cA;Reference number: A57131; MUID:91210292; PMID:2019595
543
                                                                                                                                                                                                                        604 KKGKNGGPAYEMPAFTAELTAPFPPVGAPIKFDRLLYNGRQNYNPQTGIFTCEVPGVYYF 663
                                                                                                                                                                                                                                                                                   TFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGN- 224
                                                                                                                                                                                                                                                                                                                            45 GDYSFRGYQGPPGPPGPPGIPGNHGNNGATGHEGAKGEKGDKGDLGPRGERGQHGPK 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMH 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Residues: 1-635 < MUR>
A;Cross-references: GB:M60832; NID:9177178; PIDN:AAA62822.1; PID:9177179
                                                                                                       544 PGKPGALGPOGOPGLPGPPGPPGPPAVMPPTPAPQGEYLPDMGLGIDGVKTPHAYAA
                                                           ----PETQI-----
                                                                                                                                                                  -----AFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFF
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                                                  KGDKGDLGPRGERGQHGPKGEKGYPGIP-
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S23779
collagen alpha 1(VIII) chain - mouse
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212 LAKGDEVWLRM--GNGALHGDHQRFSTFAGFLLF 243
1 | | | | | | | | | | | 209 LRRGDEVWIEKDPAKGRIYQGTEADSIFSGFLIF 242

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Cippedies: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Accession: 519018
Fyetry. F.; Redd, K.B.w.; Loos, M.
J. Immunol. 147, 3988-3993, 1991
A;Title: Gene expression of the A- and B-chain of mouse C1q in different tissues and the A;Reference number: $19018; MUID:92043789; PMID:1940381
A;Accession: $19018
A;A
C; Species: Mus musculus (house mouse)
C; Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 16-Jun-2000
C; Accession: S23779
R; Muragaki, Y.; Shiota, C.; Inoue, M.; Ooshima, A.; Olsen, B.R.; Ninomiya, Y.
R; Muragaki, Y.; Shiota, C.; Inoue, M.; Ooshima, A.; Olsen, B.R.; Ninomiya, Y.
R; Muragaki, Y.; Shiota, C.; Inoue, M.; Ooshima, A.; Olsen, B.R.; Ninomiya, Y.
R; Muragaki, Y.; Shiota, S2779
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29.5%; Pred. No. 1.2e-12;
tive 26; Mismatches 102; Indels
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722 AAGLYAGQYVH-SSFSGYLLY 741
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                      PPGIPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGERGQHGPKGEKGYPGIPPELQIAF 120
                                                                                                                                                                                                                                                                                                            61 PPGIPGNHGNNGANGATGHEGAKGEKGDKGDKGDKGERGQHGPKGEKGYPGIPPELQIAF 120
                                                                                                                                                                                                                                                                                                                                                                           MASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYV 180
                                                                                                                                                                                                                                                                                                                                                                                                 PEQUENCE FROM N.A.
Piddington C.S., Sheppard P.O., Bishop P., Lasser G.W.;
Piddington C.S., Sheppard P.O., Bishop P., Lasser G.W.;
"Homo saplens complement-clq tumor necrosis factor-related protein.";
Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                        Gaps
                                                                                                                                                                                                1 MLWRQLIYWQLLALFFLPFCLCQDEYMESPQTGGLPPDCSKCCHGDYSFRGYQGPPGPPG 60
                                                                                                                                                                                                                       181 YLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGALHGDHQRFSTFAGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg R.;
Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN.
-!- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Complement-clq tumor necrosis factor-related protein 7 precursor.
ClQTNF7 OR CTRP7.
                                                                                                                                                        ö
                                                                                                             Length 246;
                                                                                                                                                      Indels
                                            K -> E (IN REF. 3).
C589B6C3A73E5D29 CRC64;
                                                                                                       Score 1367; DB 1;
Pred. No. 1.6e-108;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   289 AA.
    COLLAGEN-LIKE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AF329839; AAK17963.1; -.
EMBL; BC022187; AAH22187.1; -.
Genew; HGNC:14342; COLTNE7.
InterPro; IPR001073; CJ1,
InterPro; IPR000087; Collagen.
Pfam; PF01391; Collagen; 2.
PRINTS; PR00007; COMPLENNTCIQ.
SMART; SM00110; CLQ; 1.
113 CC
246 CI
214 K
26994 MW;
                                                                                                             100.08;
                                                                                                                                  100.08;
                                                                                                                                  Best_Local Similarity 100.
Matches 246; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
51 1
114 2
214 2
246 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 LLFETK 246
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241 LLFETK 246
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                                          CONFLICT
                                                                                                             Query Match
    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CQT7_HUMAN
                                                                                                                                                                                                                                                                                                                                                                           121
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                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 PGRDGRDGRKGEKGEKGTAGLRGKTGPLGLAGEKGDQGETGKKGPIGPEGEKGEVGPIGP 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         104 -----KGEKGYPGIPP-----ELQIAFMASLATHFSNQNSGIIFSSVETNIGNFFDV 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Homo sapiens complement-clq tumor necrosis factor-related protein."; Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                       14 LFFLPFCLCQDEYMESPQTGGLPPDCSKCCHGDYSFRGYQGPPGPPGPPGPPGNHGNNGN 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  151 MTGRFGAPVSGVYFFTFSMM---KHEDVEEVYVYLMHNGNTVFSMYSYEMK----GKS
                                                                                   COMPLEMENT-C1Q TUMOR NECROSIS FACTOR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 PGPKGDRGEQGDPGLPGVCRCGSIVLKSAFSVGITTSYPEERLPIIFNKVLFNEGEHYNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-JUN-2002 (Rel. 41, Last sequence update)
L5-JUN-2002 (Rel. 41, Last annotation update)
Complement-crq tumor necrosis factor-related protein 2 precursor.
ClQTNF2 OR CTRP2.
                                                                                                                                                                                                                                                                                                      72;
                                                                                                                                                                                                                                            Length 289;
                                                                                                                                                                                                                                                                                                    96; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
-!-SIMILARITY: CONTAINS 1 COLLAGENOUS DOWAIN.
-!- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       202 DISSNHAVLKLAKGDEVWLRM----GNGALHGDHQRFSTFAGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A61609FF86D26946 CRC64;
                                                                                                                                                                                                                                               23.0%; Score 315; DB 1; 30.1%; Pred. No. 1.3e-19; tive 32; Mismatches 96;
                                                                                                         RELATED PROTEIN 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                        COLLAGEN-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              285
                                                          POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JUN-2002 (Rel. 41, Created)
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                                                                                                                                                                                          30683 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Piddington C.S., Bishop P.;
                                                                                                                                                                                                                                                                                                         Conservative
PROSITE; PS01113; ClQ; 1.
Collagen; Signal.
SIGNAL 1 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                     139
                                                          16
289
                                                                                                                                                                 141
289 AA;
                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 86; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                        17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strausberg R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CQT2_HUMAN
Q9BXJ5;
                                                                                                                                                                    DOMAIN
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KGDLGPRG--ERGQHGPKGEKGYPGIPPELQIAFMASLATHFSNQNSG---IIFSSVETN 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                              144 IGNFFDVMTGRFGAPVSGVYFFTFS-MMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSD 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            102 PGKPGPPGLPGAGGSGAISTATYTTVP---RVAFYAGL----KNPHEGYEVLKFDDVVTN 154
                                                                                                                                                                                                                                                                                                                                                                  SPQTGGLPPDCSKCCHGDYSFRGYQGPPGPPGIPGNHGNNGNNGATGHEGAKGEKGD 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata; Euteleostoml;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus
                                                                                                                                                                                                                                                                                                                                          25;
                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                          52C51CDF59CAE2BF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           203 TSSNHAVLKLAKGDEVWLRMGNGALH-GDHQRFSTFAGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 297.5; DB 1;
Pred. No. 3.5e-18;
                                                                                                                                                                                                                                                                                                                                           68
                                                                                                                                                                                                                                                       C1Q-RELATED FACTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                                                                                          32; Mismatches
                                                                                                                                                                                                                                            POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE-99097006; Pubmed-9878755;
                                                                                                       EMBL; AF095154; AAC64186.1; --
EMBL; AF410771; AAK95248.1; --
EMBL; BC008798; AAH08798.1; --
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
Pfam; PF001391; Collagen.
Pram; PR010391; Collagen.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C10; 1.
PROSITE; PS01113; C10; 1.
                                                                                                                                                                                                                                          16
258
115
258
26452 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Clq-related factor precursor.
                                                                                                                                                                                                                                                                                                                  21.8%;
34.2%;
                                                                                                                                                                                                                                                                                                                                          76; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                         258 AA;
                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                 Collagen; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C1RF_MOUSE
088992;
                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                       CHAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C1RF_MOUSE
                                                                                                                                                                                                                                                                                                                                                                 53
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                                                                                                                                                                                                                                                              96 GER------PELQIAFMASL 124
                                                                                                                                                                                                                                                                              LMHNGNTVFSMYSYEMK-GKSDTSSNHAVLKLAKGDEVWLRM----GNGALHGDHQRFST 236
                                                                                                                                                                                                                                                                                                                                                                            125 ATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMM---KHEDVEEVYVY 181
                                                                                                                                                                                           58; Gaps
                                                                                                                                                                                                               SFRGYQGPPGPPGPP----GIP---GNHGNNGNNGATGHEGAKGEKGDKGDLGPR 95
                                                                                                                                                                                                                                POTENTIAL.
COMPLEMENT-C10 TUMOR NECROSIS FACTOR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Mettazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Berube N.G., Swanson X.H., Bertram M.J., Kittle J.D., Didenko V., Baskin D.S., Smith J.R., Pereira-Smith O.M.; "Cloning and characterization of CRF, a novel Cig-related factor, expressed in areas of the brain involved in motor function."; Brain Res. Mol. Brain Res. 63:233-240(1999).
                                                                                                                                                                     Length 285;
                                                                                                                                                                                           74; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nickerson D.A.;
Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                             7E31FF9868D4EDFA CRC64;
                                                                                                                                                                   Score 304; DB 1;
Pred. No. 1.1e-18;
                                                                                                          RELATED PROTEIN 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
17-JUN-2002 (Rel. 41, Last annotation update)
18-PORF OR CRF.
                                                                                                                                                                                          42; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               258 AA.
                                                                                                                     COLLAGEN-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-99097006; PubMed-9878755;
          Pfam; PF00386; Clq; 1.
Pfam; PF01391; Collagen; 2.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM0110; Cl0; 1.
PROSITE; PS01113; Cl0; 1.
Collagen; Signal. 15 POT
                                                                                                                                            29952 MW;
                                                                                                                                                                  22.2%;
29.6%;
                                                                                                                                                                              Best Local Similarity 29.6
Matches 73; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                 15
285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human).
                                                                                                                   40 1
143 2
285 AA;
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TISSUE-Placenta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                            FAGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                  270 FIGFLIY 276
                                                                                            16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C1RF_HUMAN
075973;
                                                                                                                                            SEQUENCE
                                                                                                                                                                  Query Match
                                                                                                                    DOMAIN
                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
CIRF_HUMAN
                                                                                            CHAIN
                                                                                                                                                                                                                  48
                                                                                                                                                                                                                                                                                                                                                             182
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           STEFFFS
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Gaps

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90 PGPVGPPGEKGEPGKPGPPGLPGSGGSGAISTATYTTVP---RVAFYAGL----KNPHEG 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89 KGDLGPRGERGQHGPKGEKGYPG------IPPELQIAFMASLATHFSNQNSG 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29 SPQTGGLPPDCSKCCHGDYSFRGYQGPPGPPGPPGIPGNHGNNGNNGATGHEGAKGEKGD 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APM1_MOUSE STANDARD; PRT; 247 AA.
060994; Q62400; Q9DC68;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Adiponectin precursor (30 kDa adipocyte complement-related protein)
ACRP30) (Adipocyte specific protein AdipoQ).
APM1 OR ACRP30 OR ADIPOQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---IIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFS-MMKHEDVEEVYVYLMHNGNTVF
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               191 SMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGALH-GDHQRFSTFAGFLLF 243
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MEDLINE=96070757; PubMed=7592907;
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TISSUB-FIDEDDIAST;
MEDLINE-96(1)0999; Pubmed-8631877;
HU E., Liang P., Spiegelman B.M.;
                                                                                                                                                                                                                                                                                                                   InterPro; IPR001073; C1q.
InterPro; IPR0010073; C1q.
InterPro; IPR0010087; Collagen.
Pfam; PF01391; Collagen; 1.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
                                                                                                                                                                                                                                                                EMBL; AF095155; AAC64187.1; -.
MGD; MGI:1344400; Clqrf.
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                                                                                                                                                                           -1- FUNCTION: IMPORTANT NEGATIVE REGULATOR IN HEMATOPOIESIS AND IMMUNE SYSTEMS; MAY BE INVOLVED IN ENDING INFLAMMATORY RESPONSES THROUGH ITS INHIBITORY FUNCTIONS. INHIBITS ENDOTHELIAL NE-KAPPAB SIGNALING THROUGH A CAMP-DEPENDENT PATHWAY. INHIBITS THF-ALPHA-INDUCED EXPRESSION OF ENDOTHELIAL ANHESION MOLECULES. INVOLVED IN THE CONTROL OF FAT METABOLISM AND INSULIN SENSITIVITY.
-1- SUBGLIGILAR LOCATION: SECRETED IN PLASMA.
-1- SUBCLIGILAR LOCATION: SECRETED EXCLUSIVELY BY ADIPOCYTES AND SECRETED INTO SERUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=21372498; PubMed=11479627;
Yamauchi T., Kamon J., Waki H., Terauchi Y., Kubota N., Hara K.,
Mori Y., Ide T., Murakami K., Tsuboyama-Kasaoka N., Ezaki O.,
Akanuma Y., Gavrilova O., Vinson C., Reitman M.L., Kagechika H.,
Shudo K., Yoda M., Nakano Y., Tobe K., Nagai R., Kimura S., Tomita M.,
Froguel P., Kadowaki T.;
"The fat-derived hormone adiponectin reverses insulin resistance
associated with both lipoatrophy and obesity.";
Nat. Med. 7:941-946(2001).
iipoQ is a novel adipose-specific gene dysregulated in obesity.";
Biol. Chem. 271:10697-10703(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -i- INDUCTION: DURING HORMONE-INDUCED ADIPOSE DIFFERENTIATION AND ACTIVATED BY INSULIN.
-i- SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN.
-i- SIMILARITY: CONTAINS 1 C10 DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Functional annotation of a full-length mouse cDNA collection.";
                                                                           Das K., Lin Y., Widen E., Zhang Y., Scherer P.E.; "Chromosomal localization, expression pattern, and promoter anal of the mouse gene encoding adipocyte-specific secretory protein Acrp30.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Berg A.H., Combs T.P., Du X., Brownlee M., Scherer P.E.; "The adipocyte-secreted protein Acrp30 enhances hepatic insulin
                                                                                                                                               Biochem. Biophys. Res. Commun. 280:1120-1129(2001).
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                                                    SEQUENCE FROM N.A.
                                                                     PubMed=11162643;
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Euteleostom1;

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Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                                                                    Blochem.
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01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Adiponecin precursor (30 KDa adipocyte complement-related protein)
(ACRE30) (Adipose most abundant gene transcript 1) (apM-1) (Gelatin-
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M -> V. IN REF. 2).
A -> G (IN REF. 2).
A -> G (IN REF. 2).
A -> G (IN REF. 2).
X -> F (IN REF. 2).
Y -> F (IN REF. 2).
X -> F (IN REF. 2).
X -> F (IN REF. 2).
              R EMBL; U37222; AAA80543.1; --
R EMBL; U49915; AAB6706.1; --
R EMBL; AR003138; BAB22597.1; --
R MGD; MGI:106675; Acrp30.
R InterPro; IPR001073; Clq,
R InterPro; IPR001073; Clq,
R Pfam; PF00396; Collagen.
R Pfam; PF00396; Collagen, 1.
R Pfam; PF01391; Collagen; 1.
R PRNST; SM00110; COMPLENNTC10.
R SMART; SM00110; ClQ; 1.
R PROSITE; PS01113; ClQ; 1.
R HORONE; Collagen; Signal; Repeat; Hydroxylation; Plasma;
                                                                                                                                                                                                                                                                                                                                   Length 247;
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COLLAGEN-LIKE.
ch)
or send an email to license@isb-sib.
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31.5%;
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APM1 OR ACRP30 OR GBP28.
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247 AA;
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"cDNA cloning and expression of a novel adipose specific collagen-like factor, apMl (Adipose Most abundant Gene transcript 1).";
Blochem. Biophys. Res. Commun. 221:286-289(1996).
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Yamauchi T., Kamon J., Waki H., Terauchi Y., Kubota N., Hara K.,
Yamauchi T., Kamon J., Waki H., Terauchi Y., Kubota N., Easti O.,
Akanuma Y., Gavrilova O., Vinson C., Reitman M.L., Kagechika H.,
Shudo K., Yoda M., Nakano Y., Tobe K., Nagai R., Kimura S., Tomita M.,
Froguel P., Kadowaki T.;
The fat-derived hormone adiponectin reverses insulin resistance
associated with both lipoatrophy and obesity.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Adiponectin, a new member of the family of soluble defense collagens, negatively regulates the growth of myelomonocytic progenitors and the functions of macrophages.";
Blood 96:1723-1732(2000).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-99196984; PubMed-10095105;
Saito K., Tobe T., Minoshima S., Asakawa S., Sumiya J., Yoda M.,
Nakano Y., Shimizu N., Tomita M.;
"Organization of the gene for gelatin-binding protein (GBP28).";
Gene 229:67-73(1999).
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Yokota T., Oritani K., Takahashi I., Ishikawa J., Matsuyama A.,
Ouchi N., Kihara S., Funahashi T., Tenner A.J., Tomiyama Y.,
Matsuzawa Y.,
                                                                                                                                                                                                                                                                             Maeda K., Okubo K., Shimomura I., Funahashi T., Matsuzawa Y., Matsubara K.;
Chordata; Craniata; Vertebrata; Eutele
Primates; Catarrhini; Hominidae; Homo
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MEDLINE-21671103; PubMed-11812766;
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MEDLINE-20378830: Pubmed-10918532;
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                                                                                                                                                                                                           TISSUE-Adipose tissue;
MEDLINE-96224171; PubMed-8619847;
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                                                                                                            SYSTEMS; MAY DEFINITION TO A THE STATE OF THE STATE OF THE STATE OF THE SYSTEMS; MAY STATE OF THE SYSTEMS; MAY SEE THYOUGHED INFLAMMATORY RESPONSES THROUGH ITS INHIBITOR FUND THE STATE OF THE STATE OF
Yazaki Y., Nagai R., Taniyama M., Matsubara K., Yoda M., Nakano Y., Kimura S., Tomita M., Kimura S., Ito C., Eroguel P., Kadowaki T.; "Genetic variation in the gene encoding adiponectin is associated with an increased risk of type 2 diabetes in the Japanese population."; Diabetes 51:536-540(2002).
                                                                                                  -i - FUNCTION: IMPORTANT NEGATIVE REGULATOR IN HEMATOPOIESIS AND IMMUNE
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/FTId=VAR_013274.
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64D8C6C1204B1018 CRC64;
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H -> P.
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InterPro; IPR000087; Collagen.
Pfam; PF001386; Clq; 1.
Pfam; PF01391; Collagen; 1.
PRINTS; PR00007; COMPLEMNTCLQ.
SMART; SM0110; ClQ; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                143 YDGSTGKFHCNIPGLYYFAYHITVY--MKDVKVSLFKKDKAMLFTYDQYQENNVDQASGS 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Piddington C.S., Sheppard P.O.; "Homo sapiens complement-clq tumor necrosis factor-related protein."; Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                      98 RGQHGPKGEKGYPGI-----PPE----LQIAFMASLATHFSNQNSGIIFSSVETNIGNF 147
                                                                                                                                                                                                                                                                                                                 83 TGVPGAEGPRGFPGIQGRKGEPGEGAYVYRSAFSVGLETYVTIPNMPIRFTKIFYNQONH 142
                                                                                                                                                                                                                                                                                                                                                                               FDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNH 207
                                                                 Gaps
                                                                                                                                                                    23 QGPGVLLPLPKGACTGWMAGIPGHPGHPGAPGRDGRDGTPGEKGEKGDFGLIGPKGDIGE 82
                                                                                                                         53 QCP----PGPPGP-----PGIPGNHGNNGNNGATGHEGAKGEKGDKGD---LGPR---GE 97
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Complement-clg tumor necrosis factor-related protein 6 precursor.
ClQTNF6 OR CTRP6.
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N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                 31;
   Length 244;
                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strausberg R.; submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.i-similarity: CONTAINS 1 COLLAGENOUS DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201 VLLHLEVGDQVWLQVYGEGERNGLYADNDNDSTFTGFLLY 240
   DB 1;
21.5%; Score 293.5; DB 1 34.5%; Pred. No. 7.1e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RELATED PROTEIN 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            208 AVLKLAKGDEVWLRM-GNG---ALHGDHQRFSTFAGFLLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              278 AA.
                                                              35; Mismatches
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InterPro; IPR0001087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 1.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; FALSE_NEG.
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                                                                 Conservative
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278
91
                                Best_Local Similarity
Matches 76; Conserv
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SIGNAL 1
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Q9BXI9;
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CA1A_CHICK
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                                                                                                                                                 49 FRGY-----QGPPGPPGPPGIPGNHGNNGANGATGHEGAKGEKGDKGDLGPRGERGQHG 102
                                                                                                                                                                                                    103 PKGEKGYPGIPPELQIAFMA----SLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGA 157
                                                                                                                                                                                                                              -KGEMGSPGAP--CQKRFFAFSVGRKTALHSGEDFQTLLFERVFVNLDGCFDMATGQFAA 185
                                                                                                                                                                                                                                                                          Gaps
                                                                                                                    29 WAALLLFLL---MCEIPMVELTFDRAVASGCQRCCDSEDPLDPAHVSSASSGRPHALPE 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-20428709; pubmed-10862616; Koide T., Aso A., Yorthuzi T., Nagata K.; Conformational requirements of collagenous peptides for recognition by the chapterone protein HSP47."; J. Biol. Chem. 275:27957-27963(2000).

1 TISSUE SPECIFICITY: EXPRESSED IN GLIAL CELLS.

1 SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN.

1 SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                PVSGVYFFTFSMMKHE-DVEEVYVYLMHNGNTVFSMXSYEMKGKSDTSSNHAVLKLAKGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gllacolin precursor.
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                          63;
                                             DB 1; Length 278;
                                                                          Indels
                                                                                           9 WQLLALFFLPFCLCQDEYMESPQTGGLPPDCSKCC--------
  G -> V (IN REF. 2).
: 27A82CA863F23D47 CRC64;
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; 529FBAF4B2191BC1 CRC64;
                                       21.2%; Score 289.5; DB 1
28.8%; Pred. No. 1.8e-17;
ilve 34; Mismatches 96
                                                                                                                                                                                                                                                                                                                                                                                                                                  16-0CT-2001 (Rel. 40, Created)
16-0CT-2001 (Rel. 40, Last sequence update)
15-UNN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                              255 AA.
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COLLAGEN-LIKE.
                                                                                                                                                                                                                                                                                                                EVWLRM-----GNGALHGDHQRFSTFAGFLL 242
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InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
Pfam; PF00386; C1q; 1.
Pfam; PF01191; Collagen; 1.
PRINTS; PR00007; COMPLEMNTCLQ.
SMART; SM00110; C1Q; 1.
  21 G
30861 MW;
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255
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26687 M
                                                                     Conservative
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  21
278 AA;
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255 AA;
                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                  78;
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CONFLICT
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SIGNAL
                                       Query Match
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SEQUENCE
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GLIC_MOUSE
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                                                                             61 PPGIPGNHGNNGANGATGHEGAKGEKGDKGDLGPRGERGQHGPKGEKGYPGIPPELQIAF 120
                                                                                                       FS-MMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNG 225
                                                                                                                                                                                                                                                                     SEQUENCE OF 1-75 FROM N.A.

MEDLINE=89054019; PubMed=2461368;
Luvalla P., Ninomiya Y., Rosenblum N.D., Olsen B.R.;
Live type X collagen gene. Intron sequences split the 5'-untranslated region and separate the coding regions for the non-collagenous aminoterminal and triple-helical domains.";
J. Biol. Chem. 263:18378-18385(1988).
                                                                                                                                                                                         Eukaryota; Metazoa; Chórdata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
Gallus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "The developmentally regulated type X collagen gene contains a long open reading frame without introns."; J. Biol. Chem. 261:5041-5050(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SUBUNIT: HOMOTRIMER.
-!- PTM: PROLINES AT THE THEND POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.
-!- SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS.
-!- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 48-674 FROM N.A., AND SEQUENCE OF 103-117 AND 453-466. MEDLINE-86168227; Pubmed-3082876; Ninomiya Y., Gordon M., van der Rest M., Schmid T., Linsenmayer T., Olsen B.R.;
                                                                                                                                                               121 MASLATH-----FSNQNSG---IIFSSVETNIGNFFDVMTGRFGAPVSGVYFFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-89380199; PUDMEd-2476437;
MEDLINE-89380199; PUDMEd-2476437;
Managuchi N., Benya P.D., van der Rest M., Ninomiya Y.;
Managuchi N., Benya P.D., van der Rest M., Ninomiya Y.;
The cloning and sequencing of alpha 1(VIII) collagen cDNas
demonstrate that type VIII collagen is a short chain collagen and
contains fitiple-helical and carboxyl-terminal non-triple-helical
domains similar to those of type X collagen.";
J. Biol. Chem. 264:16022-16029(1989).
-!-FUNGTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC
CHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE
MINERALIZATION ZONES OF HYALINE CARTILAGE.
                                             17;
      Length 255;
                                             Indela
    DB 1;
; Score 285.5; DB ]; Pred. No. 3.5e-17; 32; Mismatches 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Last sequence update)
Last annotation update)
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01-NOV-1991 (Rel. 20, Last sequence
15-JUL-1999 (Rel. 38, Last annotatio
Collagen alpha 1(X) chain precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
20.9%;
34.2%;
                                                                                                                                                                                                                                                                                                                                                     235 KAHGGNNNKYSTFSGFIIY 253
                                                                                                                                                                                                                                                                                                                             226 ALH-GDHQRFSTFAGFLLF 243
                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REVISIONS TO C-TERMINUS
                   L Similarity
68; Conserv
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Biochem. J. 289:247-253(1993).

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-93143676; PubMed-8424763;
Elima K., Eerola I., Rosati R., Metsaranta M., Garofalo S., Perala M.,
de Crombrughe B., Vuorio E.;
"The mouse collagen X gene: complete nucleotide sequence, exon
structure and expression pattern.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            605 WVALYKNGSPVMYTYDEYQKGYLDQASGSAVIDLMENDQVWLQLPNSESNGLYSSEYVHS 664
                                                                                                                                                                                                                                                                                                                                                                                                                                     100 QHGPKGEKGYPGIP-------118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                487 PPGPKGNSGEPGLPGPPGPPGPPGQSTIPEGYVKGESRELSGMSFMKAGANQALTGMPVS 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGN---GALHGDHQRFS 235
                                                                                                                                                                                                                                                                                                                                                                                                                  ----DKGDLGPRGERG 99
                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            119 AFMASLATHESNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEV
                                                                                                   InterPro; IPR001073; C1q.
InterPro; IPR001087; Collagen.
Pfam; PF00389; C4g. 1.
Pfam; PF01391; Collagen; 8.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
PR051TE; PS01113; C1Q; 1.
Extracellular matrix; Connective tissue; Repeat; Hydroxylation;
                                                                                                                                                                                                                                                                                                                                                                                         57;
                                                                                                                                                                                                                                                                                                                                                                Score 280.5; DB 1; Length 674; Pred. No. 2.7e-16;
                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                         COLLAGEN ALPHA 1(X) CHAIN. NONHELICAL REGION (NC2). TRIPLE-HELICAL REGION.
                                                                                                                                                                                                                                                                                                                          HYDROXYLATION.
EAB48B1EF174B145 CRC64;
                                                                                                                                                                                                                                                                                   NONHELICAL REGION (NC1).
                                                                                                                                                                                                                                                                                                                                                                                           :06
                                                                                                                                                                                                                                                                                                                                                                                                                     51 GYQGPPGPPGPPGIPGNHGNNGNNGATGHEGAKGEKG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 32, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               680 AA.
                                                                                                                                                                                                                                                                                                                                                                                           23; Mismatches
                                                                                                                                                                                                                                                                                                  C1Q.
HYDROXYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Collagen alpha 1(X) chain precursor. COL10A1.
                                                                    EMBL; M13496; AAA48736.1; ALT_SEQ.
                                                                                                                                                                                                                                                                                                                                         66434 MW;
                                                                                                                                                                                                                                                                                                                                                                 20.5%;
30.9%;
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                                                                                EMBL; J04194; AAA48634.1; -
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                                                                                                                                                                                                                                           674
52
512
                                                                                               PIR; A31896; A31896.
                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236 TFAGFL 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             665 SFSGFL 670
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                                                                                                                                                                                                                                                                                                                                                                                             16;
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MOD_RES
SEQUENCE
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CA1A_MOUSE
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                                                                                            "Intron-exon structure, alternative use of promoter and expression of "Intron-exon structure, Coll0a-1."; the mouse collagen X gene, Coll0a-1."; Eur. J. Biochem. 213:99-111(1993).
                                                                                                                                                                                          MEDLINE-92267014; PubMed-1587271; Apte S.S., Seldin M.F., Hayashi M., Olsen B.R.; Apte S.S., Seldin M.F., Hayashi M., Olsen B.R.; Colining of the human and mouse type X collagen gene to chromosome 10."; Eur. J. Biochem. 206:217-224(1992).
                                                                                                                                                                                                                                                                                                                                      Elima K., Metsaeranta M., Kallio J., Peraelae M., Eerola I.,
Garofalo S., de Crombrugghe B., Vuorio E.;
"Specific Mybridization probes for mouse alpha 2(IX) and alpha 1(X)
collaqen mRNAs.";
Biochim. Biophys. Acta 1130.78-80(1992).
-!-FUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC
GHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE
MINERALIZATION ZONES OF HYALINE CARTILAGE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SUBBONTT: HOMOTRIMER.
-!- SUBBONTT: HOMOTRIMER AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (GX-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.
-!- SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS.
-!- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                    SEQUENCE FROM N.A.
STRAIN=129/Sv; TISSUE=Liver;
MEDIINE-923338750; PubMed=8477738;
Kong R.Y.C., Kwan K.M., Lau E.T., Thomas J.T., Boot-Handford R.P.,
Grant M.E., Cheah K.S.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS01113; ClQ; 1.
Extracellular matrix; Connective tissue; Repeat; Hydroxylation;
Cartilage; Collagen; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION (C1).
C10.
P -> L (IN REF. 3).
L -> F (IN REF. 3).
L -> F (IN REF. 3).
T -> S (IN REF. 3).
R -> K (IN REF. 3).
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                                                                                                                                                                                                                                                                                                                    STRAIN=C57BL/6;
MEDLINE=92182017; PubMed=1543751;
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PIR; $31216; $31216.
PIR; $32215; $32215.
MGD; MGI:88445; Colloal.
InterPro; IPR001073; Clq.
FinerPro; IPR001087; Collagen.
Pfam; PF01391; Collagen; 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PRO0007; COMPLENYTCIQ. PRODOM; PD000007; Collagen; 2. SMART; SM00110; C1Q; 1.
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EMBL, X65121; CAA46237.1; -.
EMBL, X63013; CAA4741.1; -.
EMBL, Z21010; CAA79736.1; -.
                                                                                                                                                                                                                                                                                                SEQUENCE OF 385-627 FROM N.A.
                                                                                                                                                                     SECUENCE OF 51-680 FROM N.A.
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19
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57
57
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                                                                                                                                                                                                 100 OHGPKGEKGYPGIP-----PELQ-----PELQ-128
                                                                                                                                                                                                                                                                            503 EPGLPGPPGPPGPPGQAVMPDGFIKAGQRPRLSGMPLVSANHGVTGMPVSAFTVILSKAY 562
                                                                                                                                                                                                                                                                                                             SNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNT 188
                                                                                                                                                                                                                                                                                                                                 563 PAVGAPIPFDEILYNRQOHYDPRSGIFTCKIPGIYYFSYHV--HVKGTHVWGGLYKNGTP 620
                                                                                                                                                      Gaps
                                                                                                                                                                              45 GDYSFRGYQGPPGPPGPPGIPGNHGNNGNNGATG----HEGAKGEKGDKGDLGPRGERG 99
                                                                                                                                                                                                                                                                                                                                                                           189 VFSMYSYE--MKGKSDTSSNHAVLKLAKGDEVWLRMGN---GALHGDHQRFSTFAGFLL 242
                                                                                                                                                                                                                                                                                                                                                                                              -1- PTM: PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.
-1- SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS.
-1- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
                                                                                                                                                    45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-91113131; Pubmed-1703407; Thomas J.T., Kwan A.P.L., Grant M.E., Boot-Handford R.P.,; "Isolation of cDNAs encoding the complete sequence of bovine t collagen. Evidence for the condensed nature of mammallan type
                                                                                                                   DB 1; Length 680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        collagen genes.";
Blochem. J. 273:141-148(1991).
-1- FUNCTION: TYPE X COLLAGEN IS A PRODUCT OF HYPERTHROPHIC CHONDROTOCYTES AND HAS BEEN LOCALIZED TO PRESUMPTIVE MINERALIZATION ZONES OF HYALINE CARTILAGE.
                                                                                                                                                      Indels
500 H -> L (IN REF. 3).
567 A -> C (IN REF. 3).
569 I -> H (IN REF. 3).
572 FD -> IY (IN REF. 3).
635 Q -> T (IN REF. 3).
6475 MW, FE984CA99AF700E2 CRC64;
                                                                                                                                   1 Similarity 30.5%; Pred. No. 4.1e-16; 73; Conservative 34; Mismatches 87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 674 AA
                                                                                                                  20.4%; Score 278.5; 30.5%; Pred. No. 4.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Collagen alpha 1(x) chain precursor COL10A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1991 (Rel. 20, Created)
01-NOV-1991 (Rel. 20, Last seq
15-JUL-1999 (Rel. 38, Last anno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; S13301; S13301.
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
Pfam; PF00386; C1q; 1.
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 500
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572
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635
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bos taurus (Bovine).
                                569
571
635
680 AA;
                                                                                                                                Best Local Similarity
Matches 73; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID-9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CA1A_BOVIN
P23206;
CONFLICT
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                                                                                 SEQUENCE
                                                                                                                  Query Match
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186 GNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRM---GNGALHGDHQRFSTFAGFLL 242
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MEDLINE-96186528; PubMed-8666657;
MEDLINE-96186528; PubMed-8666657;
MEDLINE-96186528; PubMed-8666657;
MIT mounder Clq genes are clustered on chromosome 4 and show conservation of gene organization.";
Immunogenetics 43:370-376(1996).
-I- FUNCTION: ClQ ASSOCIATES WITH THE PROBNIYMES CIR AND CLS TO YIELD CL, THE FIRST COMPONENT OF THE SERUM COMPLEMENT SYSTEM. THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              137 -----FSSVETNIGNFEDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHN 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       434 GHNGEAGPRGVPGIPGTRGPIGPPGIPGFPGSKGDVGTPGPPGPAGIAVKGLNGPTGPPG 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51 GYQGPPGPPGPPGIPGNHGNNGATGHEGAKGEKGD------KGDLGPRGERG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 QHGPKGEKGYPGIP-----PELQIA----FMASLATHFSNQNSGII------
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     554 KAYPAIGTPIPFDKILYNKQOHYDPRTGIFTCKIPGIYYFSYHI--HVKGTHAWVGLYKN
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
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MEDLINE-93011118; PubMed-1396691;
Petry F., Reid K.B.M., Loos M.;
"Isolation, sequence analysis and characterization of cDNA clones
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HYDROXYLATION (BY SIMILARITY).
HYDROXYLATION (BY SIMILARITY).
N-LINKED (GLCNAC. .) (POTENTIAL).
CD4CA73A03E004CA CRC64;
PRINTS: PRO0007; CONTAGN: 9.
PRINTS: PRO00007; COMPLEMNTCIO.
PRODOM: PRO00007; COLDAGON: 1.
SMART; SM00110; C1Q; 1.
EXTRACELLUS: SOILIS; C1Q: 1.
Extracellular matrix; Connective tissue; Repeat; Hydroxylation; Cartilage; Collagen; Signal; Glycoprotein.
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                                                                                                                                                                                                                                                                                     NONHELICAL REGION (NC2).
TRIPLE-HELICAL REGION.
NONHELICAL REGION (NC1).
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16-OCT-2001 (Rel. 40, Last annotation update)
Complement Clq subcomponent, C chain precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 275; DB 1;
Pred. No. 8e-16;
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01-JUL-1993 (Rel. 26, Last seq
16-OCT-2001 (Rel. 40, Last anno
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              CIR(2)CIS(2) PROBNZYME COMPLEX, AND EFFICIENT ACTIVATION OF CITAKES PLACE ON INTERACTION OF THE GLOBULAR HEADS OF CLO WITH THE FOR EGGING OF IGM ANTIBODY PRESENT IN IMMUNE COMPLEXES.
SUBBURIT: C1 IS A CALCLUM-DEPENDENT TRIMOLECULAR COMPLEX OF C10, R
AND S IN THE MOLAR RATION OF 1:2:2. C1Q SUBCOMPONENT IS COMPOSED
A NINE SUBUNITS, SIX OF WHICH ARE DISULFIDE-LINKED DIMERS OF THE C CHAIN.
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EMBL; X92960; CAA63535.1; -.
PIR; S29328; S29328.
MGD; MGI:88225; C1qc.
InterPro; IPR001073; C1q.
InterPro; IPR001087; Collagen.
Pfam; PP01391; Collagen.
Pfam; PP01391; Collagen; 1.
Pfam; PP01391; Collagen; 1.
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PROSITE; PS01113; C1Q; 1.
Complement pathway; Plasma;
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Kuivaniemi H., Tromp G., Prockop D.J.;
"Mutations in fibrillar collagens (types I, II, III, and XI), fibril-associated collagen (type IX), and network-forming collagen (type X) cause a spectrum of diseases of bone, cartilage, and blood vessels.";
Hum. Mutat. 9:300-315(1997).
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MEDLINE-94136476; PubMed-8304336;
Wallis G.A., Rash B., Sweetman W.A., Thomas J.T., Super M., Evans G., Grant M.E., Boot-Handford R.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'Genomic organization and full-length cDNA sequence of human collagen
                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-92109659; PubMed-1764025; Thomas J.T., Cresswell C.J., Rash B., Nicolai H., Jones T., Solomon E., Grant M.E., Boot-Handford R.P.; "The human collagen X gene. Complete primary translated sequence and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIINE-93012005; PubMed-1397333;
Reichenberger E., Beier F., Luvalle P., Olsen B.R., von der Mark K.,
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MEDLINE-92077285; PubMed=1743401;
Reichneberger E., Aigner T., von der Mark K., Stoeb H., Bertling W.;
"In situ hybridization studies on the expression of type X collagen in fetal human cartilage.";
Dev. Biol. 148:562-572(1991).
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
Beier F., Lammi M.B., von der Mark K.;
Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
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MEDLINE-92267014; PubMed=1587271;
Apte S.S., Seldin M.F., Hayashi M., Olsen B.R.;
"Cloning of the human and mouse type X collagen
the mouse type X collagen gene to chromosome 10.
Eur. J. Blochem. 206:217-224(1992).
                                                                                                                   (Rel. 35, Last sequence update)
(Rel. 40, Last annotation update)
                       680 AA
                                                                                                                                                                              Collagen alpha 1(X) chain precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REVIEW ON VARIANTS.
MEDLINE-97255959; PubMed-9101290;
                                                                                        01-NOV-1995 (Rel. 32, Created)
01-NOV-1997 (Rel. 35, Last seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chromosomal localization.";
Biochem. J. 280:617-623(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'EBS Lett. 311:305-310(1992)
                             STANDARD;
                                                                                                                                                                                                                                                   Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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S
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                       CA1A_HUMAN
Q03692;
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CA1A_HUMAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBUNIT: HOMOTRIMER.

FITH PROLINES AT THE THIRD POSITION OF THE TRIPEPTIDE REPEATING UNIT (G-X-Y) ARE HYDROXYLATED IN SOME OR ALL OF THE CHAINS.

DISEASE: DEFECTS IN COLLIADI ARE THE CAUSE OF SCHMID TYPE
METAPHYSEAL CHONDRODYSPLASIA (SMCD), A DOMINANTLY INHERITED
DISORDER OF THE OSSEOUS SKELETON. THE CARDINAL FEATURES OF THE PHENOTYPE ARE MILD SHORT STATURE, COXA VARA AND A WADDLING GAIT.

RADIOGRAPHY USUALLY SHOWS SCLEROSIS OF THE RIBS, FLARING OF THE METAPHYSES, AND A WIDE IRREGULAR GROWTH PLATE, ESPECIALLY OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-95181449; PubMed-7876225; Chan D., Cole W.G., Rogers J.G., Bateman J.F.; Type X collagen multimer assembly in vitro is prevented by a Gly618 metation in the alpha I(X) NCl domain resulting in Schmid metaphyseal chontrodysplasia."; J. Blol. Chem. 270:4558-4562(1995).
oacid substitutions of conserved residues in the syl-terminal domain of the alpha 1(X) chain of type X collagen in two unrelated families with metaphyseal chondrodysplasia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ikegawa S., Nakamura K., Nagano A., Haga N., Nakamura Y.; "Mutations in the N-terminal globular domain of the type X collagen gene (COLLOMA) in patients with schmid metaphyseal chondrodysplasia."; Hum. Mutat. 9:131-135(1997).
                                                                                                                                                                                                                  MEDITRE-94272470; PubMed-8004099; MCIntosh I., Abbott M.H., Warman M.L., Olsen B.R., Francomano C.A.; "Additional mutations of type X collagen confirm COL10Al as the Schmid metaphyseal chontrodysplasta locus."; Hum. Mol. Genet. 3:303-307(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-96375754; PubMed-8782043; Wallis G.A., Rash B., Sykes B., Bonaventure J., Maroteaux P., Zabel B., Wynae-Davies R., Grant M.E., Boot-Handford R.P.; "Mutations within the gene encoding the alpha 1 (X) chain of type 3 collagen (COL10A1) cause metaphyseal chondrodysplasia type Schmid not several other forms of metaphyseal chondrodysplasia type Schmid J. Med. Genet. 33:450-457(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-99057503; Pubmed-9837818;
Ikogawa S., Nishimura G., Nagai T., Hasegawa T., Ohashi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mutation of the type X collagen gene 'COL10A1' causes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 spondylometaphyseal dysplasia.";
Am. J. Hum. Genet. 63:1659-1662(1998).
                                                                                                                                   . J. Hum. Genet. 54:169-178(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VARIANTS SMCD GLU-18 AND ARG-18.
MEDLINE-97220591; PubMed-9067753;
                                       carboxyl-terminal domain of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hum. Genet. 96:58-64(1995).
             "Amino acid substitutions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VARIANTS SMD GLU-595.
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                                                                                                                                                                                                  VARIANT SMCD ARG-591
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                                                                                                      type Schmid.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
           DISEASE: DEFECTS IN COLIOAL ARE THE CAUSE OF SPONDYLOMETAPHYSEAL DYSPLASIA (SMD). SMD COMPRISES A HETEROGENEOUS GROUP OF HERITABLE SKELETAL DYSPLASIAS CHARACTERIZED BY MODIFICATIONS OF THE VERTEBRAL BODIES OF THE SPINE AND METAPHYSES OF THE TUBULAR BONES. SIMILARITY: STRONG, TO ALPHA 1 AND 2 TYPE VIII COLLAGENS. SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419 GLPGPVGPA--GAKGMPGHNGEAGPRGAPGIPGTRGPIGPPGIPGFPGSKGDPGSPGPPG 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477 PAGIATKGLNGPTGPPGPPGPRGHSGEPGLPGPPGPPGPPGQAVMPEGFIKAGQRPSLSG 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----IAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGV 162
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001073; C1q.
InterPro; IPR001087; Collagen.
Pfam; PF00389; C1q. 1.
Pfam; PF01391; Collagen: 8.
PRINTS; PR00007; COMPLEMNTC1Q.
SMART; SM00110; C1Q; 1.
Extracellular matrix; Connective tissue; Repeat; Hydroxylation; Cartilage; Collagen; Signal; Disease mutation; Polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19.8%; Score 270; DB 1; Length 680
28.5%; Pred. No. 2.1e-15;
Live 28; Mismatches 102; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COLLAGEN ALPHA 1(X) CHAIN. NONHELICAL REGION (NC2).
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NONHELICAL REGION (NC1).
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G -> R (IN SMCD).
/FTId=VAR_001839.
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C -> R (IN SMCD).
/FTId-VAR_001841.
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                                                                                                                                                                                                            EMBL, X60382; CAA42933.1; -.
EMBL, X65120; CAA46236.1; -.
EMBL, X98568; CAA67178.1; -.
EMBL, AL121963; CAB87590.1; -.
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                                                                                                                                                                                                                                                                                                                                                        S30086; S30086.
A43901; A43901.
S18249; S18249.
S21856; S21856.
S26396; S26396.
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MIM; 156500;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
Sheppard P.O., Humes J.M.;
"Homo sapiens complement-clq tumor necrosis factor-related protein.";
Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---KGDKGDLGPRGERGQHGPKGEKGYPGIPPELQIAFMASLATHFSNQNSGIIFSSVETN 143
                             163 YFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRM 222
                                               537 TPLVSANQCVTGMPVSAFTVILSKAYPAIGTPIPFDKILYNRQQHYDPRTGIFTCQIPGI 596
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RELATED PROTEIN 5.
COLLAGEN-LIKE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34 GLPP-DCSK---CCHGDYSFRGYQGPPGPPGPPGIPGNHGNNGNNGATGHEGAKGE---
                                                                                                                                                                                                                     Q9BXJO; Q9UFX4;
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Complement-clq tumor necrosis factor-related protein 5 precursor.
ClQTNF5 OR CTRP5.
                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutherla; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19.3%; Score 264.5; DB 1; Length 243; 32.6%; Pred. No. 2e-15; Live 35; Mismatches 93; Indels 25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-Uterus;
Ottenwaelder B., Obermaier B., Mewes H.-W., Gassenhuber J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (AUG-1999) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: CONTAINS 1 COLLAGENOUS DOMAIN.
-!- SIMILARITY: CONTAINS 1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7CCDA65CDA7EB784 CRC64;
                                                                                                                                                                                                        243 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch)
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EMBL; AL110261; CAB53702.1; --
Genew, HGNC:14344; C1QTNF5.
InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
Pfam; PF01381; C1q: 1.
Pfam; PF01391; Collagen; 1.
Prants; PR00007; COMPLEMNTC1Q.
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                                                                                            223 GN---GALHGDHQRFSTFAGFLL 242
                                                                                                             25298 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 25-243 FROM N.A.
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4; Conservative
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243
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Collagen; Signal
                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
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Db 72 GLPGPRGDPGPRGEAGPAGPTGPAGECSVPPRSAFSAKRSESRVPPPSDAPLPFDRVLVN 131

Qy 144 IGNFPDVMTGRFGAPVSGVYFTFSMMKHEDVEEVVY--LMHNGNTVFSMYSYEMKG-- 199

132 EQGHYDAVTGKFTCQVPGVYYFAV---HATVYRASLQFDLVKNGESIASFPQF-FGGWP 186

Qy 200 KSDTSSNHAVLKLAKGDEVWLRMGNG---ALHGDHQRFSTFAGFLLF 243
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Search completed: January 13, 2003, 10:43:07 Job time: 14 secs

099k41 mus musculu 063870 mus musculu

Q96958 homo sapten Q9662 homo sapten Q9462 homo sapten Q811p2 mus musculu Q8483 ephydatta m G6444 cricetulus G62001 mus musculu G6201 mus musculu G6201 mus musculu G6201 mus musculu G6201 mus musculu G9405 q11us gall G9432 caenorhabdi G9435 caenorhabdi G9435 mus musculu G9567 mus musculu G9567 mus musculu G9567 mus musculu G97067 q11us gall G9604 mus musculu G970604 q11us gall G9604 pullus gall G9604 pullus gall G9604 pullus gall

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RA SEQUENCE FROM N.A.

RA MEDLINE-21264842; PubMed-11071891;

RA Maded T., Abe M., Kurisu K., Jikko A., Furukawa S.;

RA Maded T. Abe M., Kurisu K., Jikko A., Furukawa S.;

RT "Molecular cloning and characterization of a novel gene, CORS26,

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RT "Molecular cloning and characterization of a novel gene, CORPLENTS; PRO0007; COLlagen.

DR PRINTS; PRO0007; COMPLEMNTCIO.

DR PRINTS; PRO1007; COMPLEMNTCIO.

DR PROSITE; PS01113; C10; 1.

SQUIBNCE 246 AA; 26028 MW; 42A481B3E9F48F7E CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBL_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ouery Match 95.9%; Score 1311; DB 11; Length 246; Best Local Similarity 95.9%; Pred. No. 9.2e-110; Matches 236; Conservative 2; Mismatches 8; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Collagenous repeat-containing sequence of 26kba protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
                                       Q63870
Q96G58
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Q95mq4 bos taurus
Q95jd7 macaca mula
Q9178 sus scrofa
Q81c71 homo sapien
Q91k4 rattus norv
Q91k67 homo sapien
Q81c92 mus musculu
Q8202 mus musculu
Q921s8 mus musculu
Q94x7 mus musculu
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                                                                                                            January 13, 2003, 10:41:03 ; Search time 33 Seconds (without alignments) 1535.988 Million cell updates/sec
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                                                                                                                                                                                                                          1 MEWROLIYWQLLALFFLPFC......LHGDHQRFSTFAGFLLFETK 246
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       GenCore version 5.1.3 Copyright (c) 1993 - 2003 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
                                                                              using sw model
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Q96D07.
Q9D2V4
Q921S8
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sp_unclassified:*
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sp_human:*
sp_invertebrate:*
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    protein search,

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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 MISWVLLAC-ALP---CAADPMLGAFARRDFQKGGPQLVCS------LPGPQGPP 54
                            MASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYV 180
                                    PPGIPGNHGNNGNNGATGHEGAKGEKGDKGDLGPRGERGQHGPKGEKGYPGIPPELQIAF 120
        61 PPGIPGNHGNNGNNGATGHEGARGERGDKGDLGPRGERGQHGPKGEKGYPGVPELGIAF 120
                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30865 MW; 6D3905AE7C19E6FA CRC64;
                                                                                                                                                             Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89;
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Pred. No. 3.8e-20;
                                                                                                                                         294 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41; Mismatches
                                                                                                                                                        Created)
                                                                                                                                                                                                                                     STRAIN=C57BL/6J; TISSUE=PANCREAS; MEDLINE=21085660; PubMed=11217851;
                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001073; Clq.
InterPro; IPR000087; Collagen.
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SMART; SM0110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22.9%;
28.9%;
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01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
1810033K05Rik protein.
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Pfam; PF01391; Collagen; 2.
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                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                            Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   294 AA;
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241 LLFETK 246
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Sato C., Yasukawa Z., Honda N., Matsuda T., Kitajima K.;
Sato C., Yasukawa Z., Honda N., Matsuda T., Kitajima K.;
Iddentification and Adipocyte Differentiation-dependent Expression of the Unique Disialic Acid Residue in an Adipose Tissue-specific Glycopyretein, Adipo G., 2001; Chem. 276:28849-28856(2001).

EMBL; AF269230; AAK58902.1; -.
InterPro; IPRO010073; C.10.
InterPro; IPRO010073; C.1lagen.
Pfam; PPO0386; Clq; 1.
Pfam; PPO0386; Clq; 1.
Propon; PD0000007; Collagen; 1.
PROSITE; PS01113; C.0lagen; 1.
PROSITE; PS01113; Clq; UNKNOWN.1.
SEQUENCE 240 AA; 26091 MW; C6253BA803B9A668 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96 GER---GQHGPKGEKGYPGIPPE-----LQIAFWASLATHFSNQNSGIIFSSVET 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         134 GIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMM---KHEDVEEVYVYLMHNGNTVF 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -GOHGPKGEKGYPGIP-----PELQIAFMASLATHFSNQNS 133
                                                                                                                   175 PIKEDKILMNEGGHYNASSGKEVCSVPGIXXFTYDITLANKH-----LALGLVHNGQ--Y 227
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                                    55 GPPGAPGSSGVVGRMGFPGKDGQDGQDGDRGDSGEEGPPGRTGNRGKQGPKGKAGAIGRA 114
                                                                                                                                                                                                                                                                                                               143 NIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bos taurus (Bovine).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                 191 SMYSYEMK-GKSDTSSNHAVLKLAKGDEVWLRM----GNGALHGDHQRFSTFAGFLLF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              203 ISSNHAVLKLAKGDEVWLRMGNGALH----GDHQRFSTFAGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21.9%; Score 299; DB 6; 33.3%; Pred. No. 5.4e-19;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                240 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Adipose tissue-specific protein adipo Q.
GPPGIPGNHGNNGNNGATGHEGAKGEKGDKGD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE=21369933; Pubmed=11382781;
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Gaps

41; 675;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51 GYQGPPGPPGPPGIPGNHGNNGNNGATGHEG--AKGEKGDKGDLGP-----RGERGQHG 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    103 PKGEKGYPG--IPPPELQIAFMASLATHFSNQNSGII---------F 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          138 SSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEM 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75 GATGHEGAKGEKGDKGDLGPRGERGQ-----HGPKGE----KGYPGIPPELQIAFMAS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    124 LATHES--NQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVY 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          182 LMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGALHGDHORFSTFAGFL 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20.0%; Score 273; DB 4; Length 1077;
29.6%; Pred. No. 7e-16;
.ive 43; Mismatches 90; Indels 38; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34 GLPPDCSKCCHGDYS----FRGYQGPP-------GPPGPPGIPGNHGNNGNN 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                510 PPGPPGPPGQAVPE---GFVKEGQRAFVSANGGVTGMPVSAFTVILSKAYPAIGAPIPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human).
Busaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 198 KGKSDTSSNHAVLKLAKGDEVWLRM---GNGALHGDHQRFSTFAGFLL 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87; Indels
                                                                                                                                                                                                                                                                                                                                                                                             Length
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Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AY074490; AAL71549.1; -
SEQUENCE 1077 AA; 120974 MW; 2B8BBF3C47D032D6 CRC64;
                                                                                                                                                                                                                                                                                                                 26397B10310383F9 CRC64;
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01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                      DB 6;
                                                                                                                                                                                                                                                                                                                                                                              20.2%; Score 276.5; DB 6
32.0%; Pred. No. 1.9e-16;
11ve 27; Mismatches 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT; 1077 AA
                                                          Pfam; PF00386; C1q; 1.
Pfam; PF01391; Collagen; 8.
PRINTS; PR00007; COMPLEMNTC1Q.
PTODOM; PD000007; COLlagen; 2.
SMART; SM00110; C1Q; 1.
PROSITE; PS01113; C1Q; 1.
                                                                                                                                                                                                                                                                                                             675 AA; 65447 MW;
                                InterPro; IPR000087; Collagen
                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 32.0
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les 72; Conserv
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SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                         Collagen.
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                                                                                                                                                                                                                                                                                                                                                                                                                                     A MEDELINE-2122234; PubMed-11334417; A MEDELINE-2122234; PubMed-11334417; A MEDELINE-2122234; PubMed-11334417; A Hotta K., Funahashi T., Bodkin N.L., Ortmeyer H.K., Arita Y., Hotta K., Funahashi T., Bodkin N.L., Ortmeyer H.K., Arita Y., A Hansen B.C., Matalawa Y.; T. Cliculating concentrations of the adipocyte protein adiponectin are decreased in parallel with reduced insulin sensitivity during the progression to type 2 diabetes in rhesus monkeys."; progression to type 2 diabetes in rhesus monkeys."; I has EMBL: AF404407; AAK92202.1; I has EMBL: AF404407; AAK92202.1; I have projected in the projected insuling the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                53 QGP----PGPPGP-----PGIPGNHGNNGATGHEGAKGEKGDKGD----LGPRGERGQ 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101 ---HGPKGEKGYPGI-----PPE----LQIAFMASLATHFSNQNSGIIFSSVETNIGNF 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         148 FDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNH 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-21015405; PubMed-11130976; Nielsen V.H., Bendixen C., Arnbjerg J., Sorensen C.M., Jensen H.E., Shukri N.M., Thomsen B.; Abnormal growth plate function in pigs carrying a dominant mutation in type X collagen.";
                                                                                                                                                                   Macaca mulatta (Rhesus macaque).
Eukaryota; Mctazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Suina, Suidae, Sus.
NCBI_TaxID=9823,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 243;
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                                           Last sequence update)
Last annotation update)
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Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         / Match 21.5%; Score 293.5; DB 6; Local Similarity 34.1%; Pred. No. 1.7e-18; nes 75; Conservative 37; Mismatches 77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            208 AVLKLAKGDEVWLRM-GNG---ALHGDHQRFSTFAGFLLF 243
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EMBL; AF222861; AAF37271.1; -.
InterPro; IPR001073; C1q.
   (TrEMBLrel. 19, C
(TrEMBLrel. 19, L
(TrEMBLrel. 21, L
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                                                                                                                                                                                                                                                                                Cercopithecinae; Macaca
NCBI_TaxID=9544;
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COL10A1.
                                01-DEC-2001
01-JUN-2002
                                                                                                         Adlponectin.
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NCBI_TaxID=9606;
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KM MEDLINE-2010874; PubMed-10853827;

KM MEDLINE-2010874; PubMed-10853827;

KM MEDLINE-2010874; PubMed-10853827;

MATKS S.A., Lundmark C., Christersson C., Wurtz T., Odgren P.R.,

Seifert M.P., MacKay C.A., Mason-Savas A., Popoff S.E.;

Endochondral bone formation in toothless (osteopetrotic) rats:

In Endochondral bone formation in toothless (osteopetrotic) rats:

In Int. J. Dev. Biol. 44:309-316(2000).

REMBL; AJ131848; CAA105181; -.

REMBL; AJ131848; CAA105181; -.

RICHEPPO: IPR000007; COA109en.

RICHEPPO: IPR000007; COA109en.

REMBL; PR01391; COLlagen.

REMBL; PR01391; COLlagen.

REMBL; PR00007; COMPLEMNTCLQ.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        175 KAYPAVGAPIPFDEILYNRQOHYDPRSGIFTCKIPGIYYFSYHI--HVKGTHVWVGLYKN 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---AFMASLA 125
                                                                                                                                                                                                                                                                                                                                                                                                                                кагсиs norvegicus (кат).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                45 GDYSFRGYQGPPGPPGPPGIPGNHGNNGNNGATG-----HEGAKGEKGDKGDLGPR---G 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    fono sapiens (Human).
Eukaryota, Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19.8%; Score 270; DB 11; Length 295; 30.2%; Pred. No. 2.8e-16; ive 34; Mismatches 87; Indels 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
CDNA: FLJ22569 fis, clone HSI02142 (Hypothetical 17.6 kDa
protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NON_TER 1 1
SEQUENCE 295 AA; 30012 MW; FF43B1548028813E CRC64;
                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   158 AA
                                                                                                                                                                                          295 AA
                                                                                                                                                                                                                                                             Created)
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Best Local Similarity 30.2.
Local Similarity 30.2.
Local Similarity 30.2.
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                                                                                                                                                                                          PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10116;
                        1074 LYQ 1076
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291 LV 292
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01-JUN-2002
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                                                                                                                              RESULT 7
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462 GPSGIPGLQGPAGPIGPQGLPGLKGEPGLPGPPG-EGRAGEPGTAGPTGPPGVPGSPGIT 520
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21 YP-LPQQMRVAFSAARTSNLAPGTLDQPIVFDLLLNNLGETFDLQLGRENCPVNGTYVEI 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   167 FSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGNGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jikuya H., Takano J., Nomura N., Kikuno R., Nagase T., Ohara O.; "The nucleotide sequence of a long cDNA clone isolated from human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 158;
SEQUENCE FROM N.A.

TISSUE-SMALL INTESTINE;
Watanabe K., Kumagai A., Itakura S., Yamazaki M., Tashiro
Suzuki Y., Obayashi M., Nishi T., Shibahara T., Tanaka T.,
Makanura T., Isoqai T., Sugano S.,
"NEDO human cDNA sequencing project.";
submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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EMBL, AR074129; BAB84955.1; -.
NON_TER 1 1 1
SEQUENCE 705 Aa; 67430 MW; 07DB85A65A948ED3 CRC64;
                                                                                                                                                                                                                                                                             Strausberg R.;
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AK026222; BAB15398.1; -.
InterPro; IPR001073; C19.
Pfam; PF00386; C19; 1.
PRINTS, PR00007; COMPLENTC1Q.
SMART; SM00110; C10; 1.
PROSITE; PS01113; C10; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          al protein.
158 AA; 17625 MW; 47DB10EDD6DC9760 CRC64;
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01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
FLJ00201 protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match
19.5%; Score 266.5; DB 4;
Best Local Similarity 37.0%; Pred. No. 2.7e-16;
Matches 51; Conservative 36; Mismatches 48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      227 LHGDHQRFSTFAGFLLFE 244
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140 IYGSSWKYSTFSGYLLYQ 157
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Best Local Similarity
Matches 79; Conserv
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                                                                                                                                                                                                                                                      TISSUE-UTERUS;
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SEQUENCE 15
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Local Similarity
                                                                                                                                                                                                                           SEQUENCE FROM N.A. TISSUE-LUNG;
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                                         521 GPPGPPGPPGAPGAPGAFDETGIAGLHLPNGGVEGAVLGKGGKPOFGLGELSAHATPAFT 580
                                                                                                       122 ASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVY 181
                                                                                                                                                                                                                                                                  122 ASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVY 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             110 RSESRVPPPADTPLPFDRVLLNEQGHFDPTTGKFTCQVPGVYYFAV----HATVYRASLQ 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HGNNGNNGATGHEGAKGEKGDKGDLGPRGE---RGQHGPKGEKGYPG---IPPELQIAFM 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 LLALLLGLV------SGSPPLDDNKIPSLCPGQ---PGLPGTPGHHGSQGLPGR 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11 LLALFFLPFCLCQDEYMESPQTGGLPPDCSK---CCHGDYSFRGYQGPPGPPGPPGIPGN 67
----PELQI-----AFM
                                                                                                                                                                                                                              LMHNGNTVFSMYSYE--MKGKSDTSSNHAVLKLAKGDEVWLRM----GNGALHGDHQRFS
                                                                                                                                             01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Similar to DKFZP586B0621 protein (Hypothetical 25.4 kDa protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse).

Variante de Mouse).

Variante de Mouse, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia; Eutheria, Rodentia; Sciurognathi; Muridae, Murinae; Musinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --LMHNGNTVFSMYSYEMKG--KSDTSSNHAVLKLAKGDEVWLRMGNG---ALHGDHQRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 11; Length 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 18.8%, Score 257.5, DB 11; Length Best Local Similarity 32.5%; Pred. No. 2.9e-15; Matches 81; Conservative 33; Mismatches 100; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Strausberg R.; Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases. EMBL; BC023068; AAH23068.1; -. EMBL; BC025174; AAH25174.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Strausberg R.;
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 protein.
243 AA: 25420 MW; 498129CD051DB97B CRC64;
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Last sequence update)
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01-DEC-2001 (TrEMBLrel. 19,
01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                     TFAGFLLFET 245
                                                                                                                                                                                                                                                                                                                                                                                         SFSGFLLCPT 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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STFSGFLVY 233
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SEQUENCE 24
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08R002

D08R00

D08R00

DT 01-JU

DT 01-JU

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                                                                                                                                                                                                                              182
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TFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGN- 224
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MEDLINE-21085660; PubMed-11217851;
Kawal J., Shingawa A., Shibatea K., Yoshino M., Itoh M., Ishii Y.,
Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
Salto T., Okazaki Y., Golobori T., Bono H., Kosukawa T., Saito R.,
Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
Fleischmann W., Gasterland T., Gissi C., King B., Kochiwa H.,
Kuchi D., Lowis S., Mateuo Y., Nikaido I., Pesole G., Quackenbush J.,
Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
Sakai K., Okido T., Erunno M., Aono H., Baldarelli R., Barsh G.,
Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34 GLPPDCSKCCHGDYSFRGYQGPPGPPGPPGIPGNHGNNG-----NNGATGHEGAKGE 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ------AFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGREGAPVSGVYFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       604 KKGKNGGPAYEMPAFTAELTAPFPPVGAPVKFNKLLYNGRONYNPOTGIFTCEVPGVYYF
                                                                                                                          Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             86 KGDKGDLGPRGERGQHGPKGEKGYPGIP------PELQI------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 744;
                                                                                                                                                                                                                                                                                                         Strausberger,
Strausberger,
Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BC013581; AAH13581.1; -..
InterPro; IPR001073; C1q.
InterPro; IPR001073; C1q.
InterPro; IPR001073; C1q.
InterPro; IPR001073; C1q.
InterPro; IPR0010707; C1lagen.
InterPro; IPR0010707; C1lagen.
InterPro; IPR0010707; C1lagen.
InterPro; IPR01113; C1Q. UNKNOWN_1.
IPROSITE; PS01113; C1Q; UNKNOWN_1.
                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutelo
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo
NCBI_TaxID=9606;
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 73.4 kDa protein.
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
Procollagen, type VIII, alpha 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26; Mismatches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 257.5; DB 4
Pred. No. 1.1e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                744 AA.
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722 QAAGLYAGQYVHSSFSGYLLY 742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          225 -- GALHGDHQRFSTFAGFLLF 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18.8%;
29.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78; Conservative
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209 VLKLAKGDEVWLRM 222
 Query Match
Best Local
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                          Matches
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Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M., Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P., Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N., Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F., Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L., Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S., Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            665 YHV--HCKGGNVWVALFKNNEPMMYTYDEYKKGFLDQASGSAVLLLRPGDQVFLQMPSEQ 722
                                                                                                                                                                                                                                                                                                                                                                                                                              --- AFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFT 166
                                                                                                                                                                                                                                                                                                                                                                                                                                              605 KGKHGGPAYEMPAFTAELTVPFPPVGAPVKFDKLLYNGRONYNPQTGIFTCEVPGVYYFA 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGN-- 224
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                          34 GLPPDCSKCCHGDYSFRGYQGPPGPPGPPGIPGNHGNNGATGHEGA-----KGE 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                     nayasuizani i.;
Punctional annotation of a full-length mouse cDNA collection.";
Nature 409:685-590(2001).
BMBL; AKO18742; BAB31383.1; -.
MGD; MGI:88463; Col8a1.
InterPro; IPR001073; Ciq.
InterPro; IPR001073; Ciq.
InterPro; IPR001073; Ciq.
InterPro; IPR00087; Collagen.
Pfam; PP01391; Collagen. 7.
PRINTS; PR00007; COMPLENNTC1Q.
PRINTS; PR001113; Clo. 1.
PROSITE; PS01113; Clo. 1.
SRART; SM01103; Clo. 1.
SRART; SM01103; Clo. 1.
SRART; SM01110; Clo. 1.
                                                                                                                                                                                                                                                                                                   54;
                                                                                                                                                                                                                                                                         Length 744;
                                                                                                                                                                                                                                                                                                                                                                             86 KGDKGDLGPRGERGQHGPKGEKGYPGIP------PELQI----
                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Strausberg R.;
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
Submitted (JUL-2001), AAHI1061.1;
EMBL; BC011061; AAHI1061.1;
InterPro; IPR001073; C19.
InterPro; IPR000087; Collagen.
Pfam; PF00386; C19; 1.
Pfam; PF00386; C19; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73621 MW; BF7A7FD79D8463AA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Procollagen, type VIII, alpha 1.
                                                                                                                                                                                                                                                                           18.8%; Score 257; DB 11;
29.6%; Pred. No. 1.2e-14;
:ive 27; Mismatches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        744 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |: |:|:||:
| AAGLYAGQYVHSSFSGYLLY 742
                                                                                                                                                                                                                                                                                           Local Similarity 29.6 ies 77; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       744 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10090;
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SEQUENCE
                                                                                                                                                                                                                                                                                Query Match
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149 DVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHA 208
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              --HGPKGEKGYPGIPPEL------QIAFMASLATHFSNQNSGIIFSSVETNIGNFF 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 GVTGVEGPRGFPGTPGRKGEPGESAYVHRSAFSVGLESRITVPNVPIRFTKIFYNLONHY 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54 GP----PGPPGP----PGIPGNHGNNGATGHEGAKGEKGDKGD---LGPRGERGQ- 100
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                                                                                                                                                                                                                           545 PGKPGALGPQGQPGLPGPPGPPGPPGPPAVMPTPSPQGEYLPDMGLGIDGVKPPHAYAGK 604
                                                                                                                                                                                                                                                                           -----AFMASLATHFSNQNSGIIFSSVETNIGNFFDVMIGRFGAPVSGVYFFT 166
                                                                                                                                                                                                                                                                                                                                                                      167 FSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRMGN-- 224
                                                                                                                                                                                                                                                                                                                                                                                                665 YHV--HCKGGNVWVALFKNNEPMYTYDEYKKGFLDQASGSAVLLLRPGDQVFLQMPSEQ 722
                                                                                                                    TISSUE-ADIPOSE TISSUE;
Rabir M., Ananthnarayan S., Ionut V., Kim S.P., Van Citters G.W.,
Rabir M., Bergman R.N.;
Paga M.K., Bergman R.N.;
Paga M.S., Bergman R.N.;
Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, RetJ1206, AAL09702.1;
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Carnivora; Fissipedia; Canidae; Canis.
NCBI_TaxID=9615;
                                                                                                                                                                                                                                                                                                                       KGKHGGPAYEMPAFTAELTVPFPPVGAPVKFDKLLYNGRQNYNPQTGIFTCEVPGVXYFA
                                              54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 194;
Length 744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                       34 GLPPDCSKCCHGDYSFRGYQGPPGPPGPPGIPGNHGNNGATGHEGA---
                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20890 MW; 3AA3D947D187AF9A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
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  18.8%; Score 257; DB 11; 29.6%; Pred. No. 1.2e-14;
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                                                   27; Mismatches
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Pfam; PF01391; Collagen; 1.
ProDom; PD000007; Collagen; 1.
PROSITE; PS01113; C1Q; UNKNOWN-1.
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Best Local Similarity 30.9%
Matches 60; Conservative
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                                  Similarity
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RX MEDLINE-2108560; PubMed-11217851;
RX MEDLINE-2108560; PubMed-11217851;
RAWal J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y., RA Arakawa T., Hara A., Erkunishi Y., Konno H., Adachi J., Fukuda S., Rashito T., Okazaki Y., Golobori T., Bono H., Kasukawa T., Saito R., Saito T., Okazaki Y., Golobori T., Bono H., Kasukawa T., Saito R., Rabito T., Casavani T., Rabito T., Mashima W., Madlou B., Kochiwa H., Rodota K., Matsuda H.A., Ashburner M., Balarova G., Quackenbush J., Rabito T., Mashima W., Magner L., Washio T., Rabito T., Furuno M., Aono H., Baldarelli R., Barsh G., Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G., Balta C., Fletcher C., Fullia M., Gariboldi M., Balta D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., Johns P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P., Nordone P., Ringwald M., Rodriguez T., Sakamoto N., Ra Sasaki H., Sato K., Schoebbach C., Seya T., Shibata Y., Storch K.-F., Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Willaning L., Hansehan R., Humshinaki Y., Kawaji H., Kohtsuki S.,
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                                                                                                                                                                    Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBL_raxID-10090;
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Strausberg R.;
Strausberg R.;
Stubnittee (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AK002655; BAB22262.1;
EMBL; AK002655; AAH02086.1;
MGD; MGI:88223; C1qa.
InterPro; IPR001073; C1q.
InterPro; IPR001073; C1q.
InterPro; IPR001086; Collagen.
Pfam; PF01391; C11g.
Pfam; PF01391; C11g.
PRINTS; PR00007; COMPLEMNTC1Q.
                                                                       01-JUN-2001 (TrEMBLrel. 17, Created)
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Complement component 1, q subcomponent, alpha polypeptide.
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SEQUENCE 245 AA; 25974 MW; 41C2066D49592020 CRC64;
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Pred. No. 1s the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. 

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4	294	21.5	247	10	HS-09-758-055-4	÷.
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US-09-993-687-47	US-086-50-60	77-22-08-09-01 (	US-09-989-73-47	US-09-989-579-47	US-09-989-727-47	10S-09-989-71-47	US-09-989-732-47	0S-09-901-073-47	US-09-900-47	-	-		77-102-00-SII		79-99C-7CO-0T-CO		US-09-911-176B-3	US-09-854-133-185	US-09-738-973-185	US-09-944-413-42	US-09-944-403-42	CV-300-040-00-511	75 000 550 00	US-U9-944-944-42	US-09-944-907-42	US-09-944-929-42	US-10-028-072-362	4
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290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	2000		187	273	273	264.5	264.5	264.5	3 770		264.5	264.5	264.5	
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ALIGNMENTS

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	1-2	Application US/10036041	No. US20020192751A1	ORMATION	Desnoyers, Luc	Eaton, Dan L.	Goddard, Audrev	Godowski, Paul J.	Gurney, Austin L.	Pan, James	Stewart, Timothy A	Watanabe, Colin K	Wood, William I.	Zhang, Zemin	INVENTION: SECRETED AND TRANSMEMBRANE	INVENTION: ACIDS ENCODING THE SAME	FILE REFERENCE: P3030R1C8	CURRENT APPLICATION NUMBER: US/10/036,041	FILING DATE: 2001-12-26	APPLICATION NUMBER: 60/085579	FILING DATE: 1998-05-15	APPLICATION NUMBER: 60/112514	FILING DATE: 1998-12-15	APPLICATION NUMBER: 60/113300	FILING DATE: 1998-12-22	z	FILING DATE: 1998-12-23	z	FILING DATE: 1998-12-23		FILING DATE: 1998-12-23			APPLICATION NUMBER: 60/115552		APPLICATION NUMBER: 60/116843		APPLICATION NUMBER: 60/125774	FILING DATE: 1999-03-23		FILING DATE: 1999-03-23
1 10000	US-10-036-041-2	; Sequence 2,	; Publication	GENERAL INFORMATION:	; APPLICANT:	; APPLICANT:	; APPLICANT:	; APPLICANT:	; APPLICANT:	; APPLICANT:	; APPLICANT:	; APPLICANT:	; APPLICANT:	; APPLICANT:	TITLE OF I	TITLE OF I	FILE REFER	CURRENT AP	CURRENT FI	AF								-		-	-	-		_	_	-	_	-		-	PRIOR FILIN
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APPLICATION NUMBER: PCT/US00/32678
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PRIOR APPLICATION NUMBER: PCT/US00/05841
PRIOR APPLICATION NUMBER: PCT/US00/14042
PRIOR FILLING DATE: 2000-05-22 APPLICATION NUMBER: PCT/US00/23328 FILING DATE: 2000-08-24 FILLING DATE: 2000-12-01 APPLICATION NUMBER: PCT/US00/34956 FILING DATE: 2000-05-22 APPLICATION NUMBER: PCT/US00/15264 FILING DATE: 2000-06-02 APPLICATION NUMBER: 09/869599
APPLICATION NUMBER: 09/869599
APPLICATION NUMBER: 09/908,827
APPLICATION NUMBER: 09/908,827
FILING DATE: 2001-07-18
APPLICATION NUMBER: PCT/US99/10733 FILING DATE: 1999-05-14 APPLICATION NUMBER: PCT/US99/28551 FILING DATE: 1999-12-02 PRIOR APPLICATION NUMBER: PCT/US99/30720 PRIOR FILING DATE: 1999-12-22 PRIOR APPLICATION NUMBER: PCT/US00/05601 APPLICATION NUMBER: PCT/US00/23522 PRIOR APPLICATION NUMBER: 60/125826
PRIOR FILING DATE: 1999-03-34
PRIOR FILING DATE: 1999-03-31
PRIOR PILING DATE: 1999-04-05
PRIOR PAPLICATION NUMBER: 60/127706
PRIOR APPLICATION NUMBER: 60/12012
PRIOR PILING DATE: 1999-04-13
PRIOR FILING DATE: 1999-04-21
PRIOR FILING DATE: 1999-04-27
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APPLICANT: GUGUMANT; GULONGY, AUSTLID.

APPLICANT: GURINGY, AUSTLID.

APPLICANT: Ban, James
APPLICANT: Watanabe, Collin K.

APPLICANT: Watanabe, Collin K.

APPLICANT: Watanabe, Collin K.

APPLICANT: Jame, James
APPLICANT: James, James
APPLICANT: James
APPLICANTION: ACIDS ENCODING THE SAME
TITLE OF INVENTION: ACIDS ENCODING THE SAME
TITLE OF INVENTION: ACIDS ENCODING THE SAME
TITLE OF INVENTION JUMBER: GO/085579
PRIOR APPLICATION NUMBER: GO/112514
PRIOR APPLICATION NUMBER: GO/113509
PRIOR FILING DATE: 1998-05-15
PRIOR FILING DATE: 1998-12-22

PRIOR APPLICATION NUMBER: GO/113430
PRIOR FILING DATE: 1998-12-23

PRIOR APPLICATION NUMBER: GO/113605

PRIOR APPLICATION NUMBER: GO/113605

PRIOR FILING DATE: 1998-12-23 121 MASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYV 180 Gaps Length 246; 100.0%; Score 1367; DB 9; Length 100.0%; Pred. No. 1e-111; Live 0; Mismatches 0; Indels PRIOR FILING DATE: 2000-12-20
PRIOR APPLICATION NUMBER: PCT/USO1/06520
PRIOR APPLICATION NUMBER: PCT/USO1/06520
PRIOR APPLICATION NUMBER: PCT/USO1/17800
PRIOR FILING DATE: 2001-06-01
PRIOR FILING DATE: 2001-06-20
PRIOR FILING DATE: 2001-06-29
PRIOR APPLICATION NUMBER: PCT/USO1/21066
PRIOR APPLICATION NUMBER: PCT/USO1/21735
PRIOR APPLICATION NUMBER: PCT/USO1/21735
PRIOR FILING DATE: 2001-06-29
PRIOR FILING DATE: 2001-06-29
NUMBER OF SEQ ID NOS: 80 FILING DATE: 2000-12-20
APPLICATION NUMBER: PCT/US01/06520
TITANG DATE: 2001-02-28 RESULT 2
US-10-036-342-2
Sequence 2, Application US/10036342
Patent No. US20020090681A1
GENERAL INPORMATION:
APPLICANT: Desnoyers, Luc Best Local Similarity 100.0 Matches 246; Conservative Goddard, Audrey Godowski, Paul TYPE: PRT; ORGANISM: Homo Sapien US-10-036-041-2 241 LLFETK 246 ||||||| 241 LLFETK 246 APPLICANT: APPLICANT: APPLICANT: LENGTH: 246 Query Match q g οχ δŏ a δy g δ g Qγ

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PRIOR PLILICATION NUMBER: 60/13-7
PRIOR PLILING DATE: 1999-10-3
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PRIOR PLILING DATE: 2001-03-3
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PRIOR PRILING DATE: 2001-03-1
PRIOR PRILING DATE: 1999-13-2
PRIOR PRINCATION NUMBER: 90/204-2
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Sequence 4, Application US/09776976

Sequence 4, Application US/09776976

Sequence 4. Application US/09776976

Sequence 4. Application US/09776976

Seneral INPORMATION:

APPLICANT: Fruebis, Joachim

APPLICANT: Fruebis, Joachim

APPLICANT: Frances

TITLE OF INVENTION: OBG3 Globular Head and Uses Thereof for Decreasing Body Mass

FILE REFERENCE: 76.0484.REG

CURRENT APPLICATION NUMBER: US/09/776,976

CURRENT APPLICATION NUMBER: US 09/758,055

PRIOR FILING DATE: 2001-01-06

PRIOR FILING DATE: 2000-01-14

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PRIOR FILING DATE: 2000-01-14
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100.0%; Pred. No. 1e-111;
tive 0; Mismatches 0;
PRIOR APPLICATION NUMBER: PCT/USO0/14042
PRIOR FLILING DATE: 2000-05-27
PRIOR APPLICATION NUMBER: PCT/USO0/1564
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PRIOR APPLICATION NUMBER: PCT/USO0/23522
PRIOR APPLICATION NUMBER: PCT/USO0/23523
PRIOR APPLICATION NUMBER: PCT/USO0/2328
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PRIOR PLILING DATE: 2000-18-34
PRIOR PELING DATE: 2000-12-01
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PRIOR PLILING DATE: 2000-12-01
PRIOR PLILING DATE: 2001-06-20
PRIOR PPLICATION NUMBER: PCT/USO1/19692
PRIOR PLILING DATE: 2001-06-01
PRIOR PPLING DATE: 2001-06-01
PRIOR APPLICATION NUMBER: PCT/USO1/19692
PRIOR PLILING DATE: 2001-06-20
PRIOR APPLICATION NUMBER: PCT/USO1/19692
PRIOR PPLING DATE: 2001-06-20
PRIOR APPLICATION NUMBER: PCT/USO1/21735
PRIOR PILING DATE: 2001-06-29
PRIOR APPLICATION NUMBER: PCT/USO1/21735
PRIOR PILING DATE: 2001-06-29
PRIOR APPLICATION NUMBER: PCT/USO1/21735
PRIOR PILING DATE: 2001-06-29
PRIOR PILING DATE: 2001-06-29
PRIOR PILING DATE: 2001-06-29
NUMBER: PCT/USO1/21735
NUMBER: PCT/USO1/21735
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Best Local Similarity 100.0
Matches 246; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT ORGANISM: HOMO Sapien US-10-036-342-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LLFETK 246
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||LFETK 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 2
LENGTH: 246
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TYPE: PRT
CORGANISM: mus musculus
US-09-909-547-4
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SOFTWARE: Patent.pm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 6
US-09-911-176B-48
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APPLICANT: Erickson, Mary Ruth
APPLICANT: Frances
APPLICANT: Bihain, Bernard
TITLE OF INVENTION: 0863 Globular Head and Uses Thereof for Decreasing Body Mass
FILE REPERENCE: 76.054.REG
CURRENT FILING DATE: 2001-01-10
PRIOR FILING DATE: 2000-01-14
PRIOR FILING DATE: 2000-01-14
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-09-01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116 ----LQIAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMM 170
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                                                                                                                                                                                                                                                                                                                                                                                KHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRM-GNG---A 226
                                                                                                                                                                                                                                                                                                                                                                                               169 VY--MKDVKVSLFKKDKAVLFTYDQYQEKNVDQASGSVLLHLEVGDQVWLQVYGDGDHNG 226
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31.5%; Pred. No. 1.5e-18;
iive 40; Mismatches 102;
                                                                                                                                                         21.5%; Score 294; DB 10;
31.5%; Pred. No. 1.5e-18;
iive 40; Mismatches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE: 2000-04-13
PRIOR APPLICATION NUMBER: US 60/299,881
PRIOR FILING DATE: 2000-09-01
NUMBER OF SEQ ID NOS: 7
SOFTWARE: Patent.pm
SEQ ID NO 4
LENGTH: 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application US/09758055 Patent No. US20020058617A1 GENERAL INFORMATION:
APPLICANT: Fruebls, Joachim
                                                                                                                                                                                                                                                                                                                                                                                                                                                             | : |: || || || || || || LYADNVNDSTFTGFLLY 243
                                                                                                                                                                                                                                                                                                                                                                                                                                              LHGDHQRFSTFAGFLLF 243
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                                                                                                                                                                          1 Similarity 31.5981; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: mus musculus US-09-758-055-4
                                                                                                                     ORGANISM: mus musculus
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NUMBER OF SEQ 1...
SOFTWARE: Patent.pm
; SEQ ID NO 4
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Best Local S
Matches 81
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                                                                                                          TYPE: PRT
                                                                                                                                                                Query Match
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Matches 8
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APPLICANT: FIGURES, JOSCHIMIN
APPLICANT: FEATCRSON, MARY Ruth
APPLICANT: FEATCRSON, MARY RUTH
APPLICANT: Bihain, Bernard
TITLE OF INVENTION: OBG3 Globular Head and Uses Thereof for Decreasing Body Mass
TITLE OF INVENTION: OBG3 Globular Head and Uses Thereof for Decreasing Body Mass
FILE REFERENCE: 76.US6.CIP
CURRENT FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 09/776,976
PRIOR APPLICATION NUMBER: US 09/776,976
PRIOR PELING DATE: 2001-01-10
PRIOR PELING DATE: 2000-09-01
PRIOR PELING DATE: 2000-09-01
PRIOR PELING DATE: 2000-04-13
PRIOR PELING DATE: 2000-01-14
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                                                      ----LQIAFMASLATHFSNQNSGIIFSSVETNIGNFFDVMTGRFGAPVSGVYFFTFSMM 170
                                                                                                                                                                     171 KHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNHAVLKLAKGDEVWLRM-GNG---A 226
                                                                                                                                                                                                       169 VY--MKDVKVSLFKKDKAVLFTYDQYQEKNVDQASGSVLLHLEVGDQVWLQVYGDGDHNG 226
HPGHNGTPGRDGRDGTPGEKGEKGDAGLLGPKGETGDVGMTGAEGPRGFPGTPGRKGEPG 108
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                                                                                          EAAXMYRSAFSVGLETRVIVPNVPIRFIKIFYNQQNHYDGSTGKFYCNIPGLYFSYHIT
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21.5%; Score 294; DB 10;
Best Local Similarity 31.5%; Pred. No. 1.5e-18;
Matches 81; Conservative 40; Mismatches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 4, Application US/09909547
Patent No. US20020091080Al
GENERAL INFORMATION:
APPLICANT: Fruebis, Joachim
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APPLICANT: Fruebis, Joachim
APPLICANT: Fruebis, Joachim
APPLICANT: Fruebis, Joachim
APPLICANT: Fruebis, Son, Mary Ruth
APPLICANT: Frances
File Refresher: Bihain, Bernard
FITLE OF INVENTION: OBG3 Globular Head and Uses Thereof for Decreasing Body Mass
FILE REFRENCE: 76 US4. REC
CURRENT APPLICATION NUMBER: US 60/176,228
FRIOR APPLICATION NUMBER: US 60/176,228
FRIOR APPLICATION NUMBER: US 60/198,087
FRIOR FILING DATE: 2000-04-13
FRIOR FILING DATE: 2000-04-13
FRIOR FILING DATE: 2000-09-01
SRIOR APPLICATION NUMBER: US 60/299,881
FRIOR FILING DATE: 2000-09-01
SRIOR APPLICATION NUMBER: US 60/299,881
FRIOR FILING DATE: 2000-09-01
SOUTHARD OF SEQ ID NOS: 7
SOUTHARD OF SEQ ID NOS: 7
SOUTHARD OF SEQ ID NOS: 7
FERRIT PARCET FARENCE: ABBLICATION NUMBER: US 60/299,881
                                                                                                                                                  98 RGOHGPKGEKGYPGI-----PPE----LQIAFMASLATHFSNQNSGIIFSSVETNIGNF 147
                                                                                                                                                                          148 FDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNH 207
                                                                                             53 QGP----PGPPGP-----PGIPGNHGNNGNNGATGHEGAKGEKGDKGD---LGPR---GE 97
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                                   78; Indels
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                                   Mismatches
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34.5%; Pred. No. 1.7e
tive 35; Mismatches
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Patent No. US20020058617A1
GENERAL INFORMATION:
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Patent No. US20020091080A1
GENERAL INFORMATION:
APPLICANT: Fruebis, Joachim
                               35;
                               Conservative
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Best Local Similarity 34.5%
Matches 76; Conservative
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US-09-758-055-6
                          16;
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APPLICANT: Fruebis, Joachim
APPLICANT: Erickson, Mary Ruth
APPLICANT: Erickson, Mary Ruth
APPLICANT: Erickson, Mary Ruth
APPLICANT: End. Frances
TITLE OF INVENTION: 08G3 Globular Head and Uses Thereof for Decreasing Body Mass:
FILE REPEBENCE: 76 US4.REG
CURRENT APPLICATION NUMBER: US 09/756,976
CURRENT APPLICATION NUMBER: US 09/758,055
PRIOR APPLICATION NUMBER: US 60/176,28
PRIOR APPLICATION NUMBER: US 60/176,28
PRIOR FILING DATE: 2000-01-14
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-09-01
NUMBER OF SEQ ID NOS: 7
SOFTWARE: PATENT.
SOFTWARE: PATENT.
SOFTWARE: PATENT.
NUMBER OF SEQ ID NOS: 7
SOFTWARE: PATENT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          148 FDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNH 207
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Sequence 48, Application US/09911176B
Patent No. US20020156243A1
GENERAL INCORMATION:
TOTAL FOR INVENTION: ANTIBODIES THAT BIND AN
TITLE OF INVENTION: ADIPOCYTE-SPECIFIC PROTEIN HOMOLOG
FILE REFERENCE: 97-30D1 HOMBER: US/09/911,176B
CURRENT TAILNG DATE: 2001-07-23
CURRENT TILING DATE: 1998-07-17
PRIOR APPLICATION NUMBER: 09/118,408
PRIOR FILING DATE: 1998-07-17
PRIOR FILING DATE: 1998-07-17
PRIOR FILING DATE: 1998-07-17
SOFTWARE: FastSEQ for Windows Version 3.0
SOFTWARE: 1404
TYPE: PRT
TYPE: PRT
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .7e-18;
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Pred. No. 1.7e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  21.5%; Score 293.5; D 34.5%; Pred. No. 1.7e-tive 35; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 6, Application US/09776976
Patent No. US20020037849Al
GENERAL INFORMATION:
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34.5%;
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Best Local Similarity 34.5%
Matches 76; Conservative
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; ORGANISM: Homo sapiens
US-09-776-976-6
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Best Local Similarity
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US-09-911-176B-48
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US-09-758-055-2
US-09-776-976-2
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Sequence 2, Application US/09776976

Patent No. US2002003784341

GENERAL INFORMATION:
APPLICANF Fructary. Jacchim
APPLICANF Fructary. Mary Ruth
APPLICANT Bariard
APPLICANT Bernard
TITE OF INVERTION: 063 Globular Head and Uses Thereof for Decreasing Body Mass;
FILE REFERENCE: 76.US4.REG
CURRENT APPLICATION NUMBER: US/09/776,976

CURRENT FILING DATE: 2001-02-05
PRIOR FILING DATE: 2001-01-04

PRIOR FILING DATE: 2000-01-14

PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-13

PRIOR FILING DATE: 2000-09-01

NUMBER OF SEQ ID NOS: 7

SEQ ID NO 2

SEQ ID NO 2

SEQ ID NO 2

SEQ ID NO 2

LEMENTH 2A7
      APPLICANT: Erickson, Mary Ruth
APPLICANT: Yen, Frances
APPLICANT: Wen, Frances
TITLE OF INVENTION: OBGG Globular Head and Uses Thereof for Decreasing Body Mass
TILE REFERENCE: 76.US6.CIP
CURRENT APPLICATION NUMBER: US/09/909,547
CURRENT APPLICATION NUMBER: US 09/776,976
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-01-10
PRIOR FILING DATE: 2000-01-10
PRIOR FILING DATE: 2000-01-11
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-14
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-01-14
STRING APPLICATION NUMBER: US 60/176,228
PRIOR FILING DATE: 2000-01-14
STRING DATE: 2000-01-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        148 FDVMTGRFGAPVSGVYFFTFSMMKHEDVEEVYVYLMHNGNTVFSMYSYEMKGKSDTSSNH 207
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53 QGP----PGPPGP-----PGIPGNHGNNGNNGATGHEGAKGEKGDKGD---LGPR---GE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      208 AVLKLAKGDEVWLRM-GNG---ALHGDHQRFSTFAGFLLF 243
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
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Best Local Similarity
Matches 76; Conserv
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US-09-776-976-2
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GENERAL INPORMATION:
GENERAL GENERAL
APPLICANT:
FILE PEPERENCE:
TITLE OF INVENTION:
GENERAL GENERAL
FILE REPERENCE:
GURRENT APPLICATION NUMBER:
GURRENT FILING DATE:
GURRENT FILING DATE:
GOOD-01-14
PRIOR FILING DATE:
COOD-04-13
PRIOR FILING DATE:
COOD-04-13
PRIOR FILING DATE:
COOD-09-01
SPRIOR FILING DATE:
COOD-09-01

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64 IPGNHGNNGNNGATGHEGAKGEKGDKGD---LGPRGER---GQHGPRGEKGYPGIPPE-- 115
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             106 EPGEAAYVRSGFSVGLETRVTVPNVPIRFTKIFYNQQNHYDNSTGKFYCNIPGLXYFSY 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64 IPGNHGNNCNNGATCHEGAKGEKGDKGD---LGPRGER---GQHGPKGEKGYPGIPPE-- 115
                                                                                                                                                                                                                                                                                                                                                                                             46 IPGHSGHNGTPGRDGRDGTPGEKGEKGDSGLLGPKGETGDVGMTGAEGPRGFPGTPGRKG 105
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Length 247;
21.4%; Score 293; DB 10; Length 2'
llarity 31.2%; Pred. No. 1.9e-18;
Conservative 40; Mismatches 99; Indels
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21.4%; Score 293; DB 10;
Best Local Similarity 31.2%; Pred. No. 1.9e-18;
Matches 81; Conservative 40; Mismatches 99;
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                      Query Match
Best Local Similarity
Matches 81; Conserv
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PRIOR FILING DATE: 1998-06-04
PRIOR APPLICATION NUMBER: 60/088033
PRIOR FILING DATE: 1998-06-04
PRIOR APPLICATION NUMBER: 60/088326
PRIOR FILING DATE: 1998-06-04
PRIOR FILING DATE: 1998-06-07
PRIOR PRIOR DATE: 1998-06-05
PRIOR PLICATION NUMBER: 60/088167
PRIOR APPLICATION NUMBER: 60/088202
                                                         Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Kljavin, Ivar J.
Napler, Mary A.
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APPLICATION NUMBER: 60/088202
FILING DATE: 1998-06-05
APPLICATION NUMBER: 60/088212
FILING DATE: 1998-06-05
                                                                                                                                                                                                           Watanabe, Colin K.
Williams, P. Mickey
Wood, William I.
Zhang, Zemin
                                                                                                                                   Pan, James
Paoni, Nicholas F.
Roy, Margaret Ann
Stewart, Timothy A.
                Gerber, Hanspeter
Gerritsen, Mary E.
Goddard, Audrey
                                                                                                                                                                                            Tumas, Daniel
Fong, Sherman
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APPLICANT:
APPLICANT:
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APPLICANT
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APPLICANT
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APPLICANT:
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                                                                                              Sequence J. Application US/09909547 .

Sequence J. Application US/09909547 .

Sequence J. Application US/09909547 .

Sequence J. Application US/09009180Al

SENERAL INPORMATION:

APPLICANT: Erickson, Mary Ruth
APPLICANT: Erickson, Mary Ruth
APPLICANT: Bilain, Bernard

TITLE OF INVENTION: OBG3 Globular Head and Uses Thereof for Decreasing Body Mass

FILE REFERENCE: 76 US6.CIP

CURRENT APPLICATION NUMBER: US/09/909,547

CURRENT APPLICATION NUMBER: US 09/776,976

PRIOR APPLICATION NUMBER: US 60/299,881

PRIOR FILING DATE: 2001-01-10

PRIOR FILING DATE: 2000-09-01

PRIOR FILING DATE: 2000-09-01

PRIOR FILING DATE: 2000-09-01

PRIOR FILING DATE: 2000-09-01

PRIOR FILING DATE: 2000-01-14

PRIOR APPLICATION NUMBER: US 60/199,087

PRIOR FILING DATE: 2000-01-14

SEQ ID NOS: 7

SEQ ID NOS: 7
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US-09-992-598-47
Sequence 47, Application US/09992598
Sequence 47, Application US/09992598
Sequence 47, Application US/09992598
GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Eston, Dan L.
APPLICANT: Eston, Dan L.
APPLICANT: Ferrara, Napoleone
                 224 HNGLYADNVNDSTFTGFLLF 243
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226 -- ALHGDHORFSTFAGFLLF
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US-09-909-547-2
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NUMBER: 60/088217 1998-06-05 NUMBER: 60/088655 1998-06-09 NUMBER: 60/088734 1998-06-10 NUMBER: 60/088742 1998-06-10 NUMBER: 60/088742 1998-06-10 1998-06-10 1998-06-10	NUMBER: 60/08858 1998-06-10 1998-06-11 1998-06-11 1998-06-11 1998-06-11 1998-06-11 1998-06-11 1998-06-12 1998-06-12 1998-06-12 1998-06-16 1998-06-16 1998-06-16 1998-06-16 1998-06-16 1998-06-16 1998-06-16 1998-06-16 1998-06-16 1998-06-16 1998-06-17 1998-06-19 1998-06-22 1998-06-22 1998-06-23 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24 1998-06-24
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21.3%; Score 290.5;
Best Local Similarity 28.8%; Pred. No. 3.2e
Matches 78; Conservative 34; Mismatches PRIOR APPLICATION NUMBER: 60/090535
PRIOR PILLING DATE: 1998-06-24
PRIOR PELLING DATE: 1998-06-25
PRIOR PELLOATION NUMBER: 60/090690
PRIOR PELLING DATE: 1998-06-25
PRIOR PELLOATION NUMBER: 60/090690
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PRIOR PELLING DATE: 1998-07-02
PRIOR PELLOATION NUMBER: 60/091626
PRIOR PELLING DATE: 1998-07-02
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PRIOR PELLOATION NUMBER: 60/091633
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R APPLICATION NUMBER: 60/08167

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R APPLICATION NUMBER: 60/086217

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R APPLICATION NUMBER: 60/08817

R APPLICATION NUMBER: 60/088655

R FILING DATE: 1998-06-05

R FILING DATE: 1998-06-10

R APPLICATION NUMBER: 60/088734

R FILING DATE: 1998-06-10

R APPLICATION NUMBER: 60/08874

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R FILING DATE: 1998-06-16
R FILING DATE: 1998-06-16
R APPLICATION NUMBER: 60/089514
R FILING DATE: 1998-06-16
R APPLICATION NUMBER: 60/089538
R FILING DATE: 1998-06-17
R APPLICATION NUMBER: 60/089598
R FILING DATE: 1998-06-17
R APPLICATION NUMBER: 60/089598
R FILING DATE: 1998-06-17
R APPLICATION NUMBER: 60/089600
R FILING DATE: 1998-06-17
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R FILING DATE: 1998-06-17
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R FILING DATE: 1998-06-19
R APPLICATION NUMBER: 60/080252
R FILING DATE: 1998-06-19
R APPLICATION NUMBER: 60/090349
R FILING DATE: 1998-06-22
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R APPLICATION NUMBER: 60/090349
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R FILING DATE: 1998-06-11
R APPLICATION NUMBER: 60/089105
R APPLICATION NUMBER: 60/089440
R FILING DATE: 1998-06-16
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FILING DATE: 1998-06-11
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Sequence 47, Application US/09989293A
Patent No. US20020177164a1
GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
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APPLICATION NUMBER: 60/088030
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FILING DATE: 1998-06-04
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APPLICATION NUMBER: 60/088033
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Gerritsen, Mary E.
Goddard, Audrey
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Eaton, Dan L.
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APPLICANT:
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APPLICANT: WOOD, WILLIAGH I.

APPLICANT: WOOD, WILLIAGH I.

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Ucleic
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
CURRENT PEDENTION: NUMBER: US/09/989,735
CURRENT PELING DATE: 1997-10-16
PRIOR APPLICATION NUMBER: 60/049787
PRIOR PELING DATE: 1997-10-17
PRIOR PELING DATE: 1997-11-12
PRIOR PELING DATE: 1997-11-12
PRIOR PELING DATE: 1997-11-12
PRIOR PELING DATE: 1997-11-12
PRIOR PELING DATE: 1997-11-24
PRIOR PELING DATE: 1998-02-20
PRIOR PELING DATE: 1998-03-20
PRIOR PELING DATE: 1998-03-20
PRIOR PELING DATE: 1998-03-20
PRIOR PELING DATE: 1998-05-28
PRIOR PELING DATE: 1998-05-28
PRIOR PELING DATE: 1998-06-02
  167 PLRGIYFFSLNV--HSWNYKETYVHIMHNQKEAVILYA-QPSERSIMQSQSVMLDLAYGD 223
                                                    217 EVWLRM-----GNGALHGDHQRFSTFAGFLL 242
                                                                              224 RVWVRLFKRQRENAIYSNDFDTYITFSGHLI 254
                                                                                                                                                                                                                          Sequence 47, Application US/09989735 Publication No. US20020193299A1 GENERAL INFORMATION:
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FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088025
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Gurney,Austin L.
Kljavin,Ivar J.
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Williams, P. Mickey
Wood, William I.
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Tumas, Daniel
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Goddard, Audrey
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Paoni, Nicholas F.
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US-09-989-735-47
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                    R FILING DATE: 1998-06-24

R APPLICATION NUMBER: 60/090431

R FILING DATE: 1998-06-24

R APPLICATION NUMBER: 60/090445

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R FILING DATE: 1998-06-24

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R APPLICATION NUMBER: 60/090695

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R APPLICATION NUMBER: 60/090862

R APPLICATION NUMBER: 60/090862

R APPLICATION NUMBER: 60/090863

R APPLICATION NUMBER: 60/091860

R FILING DATE: 1998-06-26

R FILING DATE: 1998-07-01

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R APPLICATION NUMBER: 60/091478

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FILING DATE: 1998-06-24
APPLICATION NUMBER: 60/090676
APPLICATION NUMBER: 60/090678
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APPLICATION UNMBER: 60/091978
FILING DATE: 1998-07-07
APPLICATION NUMBER: 60/091982
APPLICATION NUMBER: 60/090429
FILING DATE: 1998-06-24
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APPLICATION NUMBER: 60/090542
FILING DATE: 1998-06-24
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APPLICATION NUMBER: 60/090690
FILING DATE: 1998-06-25
APPLICATION NUMBER: 60/090694
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APPLICATION UNBER: 60/091626
FILING DATE: 1998-07-02
APPLICATION NUMBER: 60/091633
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APPLICATION NUMBER: 60/092182
FILING DATE: 1998-07-09
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Best Local Similarity 28.84
Matches 78; Conservative
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PRIOR APPLICATION NUMBER: 60/090254
PRIOR FILING DATE: 1998-06-22
PRIOR APPLICATION NUMBER: 60/090254
PRIOR FILING DATE: 1998-06-23
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PRIOR PELING DATE: 1998-07-03
PRIOR PELING DATE: 1998-PRIOR APPLICATION NUMBER: 60/091982 PRIOR FILING DATE: 1998-07-07 PRIOR APPLICATION NUMBER: 60/092182 PRIOR FILING DATE: 1998-07-09 Conservative Query Match Best Local Similarity Matches 78; Conserva QQ ò ò

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Gaps